OM protein - protein search, using sw model

Run on: November 17, 2003, 18:21:08 ; Search time 21 Seconds
(without alignments)
45.795 Million cell updates/sec

Title: US-09-462-089-1
Perfect score: 63
Sequence: 1 EHWSYGLRPG 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283308 seqs, 96168682 residues

Total number of hits satisfying chosen parameters: 1100

Minimum DB seq length: 0
Maximum DB seq length: 10

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	60	95.2	10	1	RHPGG	gonadoliberin - pi
2	60	95.2	10	1	RHSHG	gonadoliberin - sh
3	56	88.9	10	1	RHAQ1	gonadoliberin I -
4	47	74.6	10	2	A21114	gonadoliberin - ch
5	42	66.7	10	1	RHAQ2	gonadoliberin II -
6	42	66.7	10	1	A61126	gonadoliberin - sp
7	42	66.7	10	2	B46030	gonadoliberin II -
8	42	66.7	10	2	A49187	gonadotropin-relea
9	42	66.7	10	2	A46030	gonadoliberin I -
10	26	41.3	10	1	RHLMGS	gonadoliberin - se
11	25	39.7	10	2	PQ0177	neuromedin C - lau
12	25	39.7	10	2	A60647	neuromedin C - bov
13	22	34.9	9	2	PT0299	Ig heavy chain CRD
14	21	33.3	5	2	PT0281	Ig heavy chain CRD
15	21	33.3	9	2	S39437	D-amino-acid oxida
16	20	31.7	10	2	F33932	Ig mu chain J regi
17	19	30.2	7	2	A60139	fatty-acid synthas
18	19	30.2	8	2	D47393	neuropeptide calla
19	19	30.2	9	2	S07205	litorin 2-Glu - Au
20	19	30.2	9	2	S07204	litorin I - Austra
21	19	30.2	10	1	ECLQ1M	tachykinin I - mig
22	19	30.2	10	1	ECLQ3M	tachykinin III - m
23	18	28.6	9	2	PT0268	Ig heavy chain CRD
24	18	28.6	10	2	B33995	hypotrehalosemic h
25	17	27.0	8	2	PH1618	Ig H chain V-D-J r
26	17	27.0	9	2	D58503	translation elonga
27	17	27.0	9	2	PT0238	Ig heavy chain CRD
28	17	27.0	9	2	PH1591	Ig H chain V-D-J r
29	17	27.0	9	2	G41946	T-cell receptor ga
30	17	27.0	10	2	A49581	sialokinin I - yel
31	17	27.0	10	2	B49581	sialokinin II - ye
32	17	27.0	10	2	A24867	scyliorhinin I - s
33	17	27.0	10	2	B61033	ranatachykinin B -
34	17	27.0	10	2	S77990	cytochrome-c oxida
35	17	27.0	10	2	PH1633	Ig H chain V-D-J r
36	16	25.4	7	4	I55382	hypothetical pepti
37	16	25.4	9	2	S07241	litorin - Rohde's
38	16	25.4	10	2	S65388	cytochrome-c oxida
39	16	25.4	10	2	B60589	sperm-activating p
40	16	25.4	10	2	PH1344	Ig heavy chain DJ
41	16	25.4	10	2	S23370	T-cell receptor al
42	16	25.4	10	2	F49033	T-cell receptor ga
43	15	23.8	6	2	PT0726	T-cell receptor be
44	15	23.8	7	2	A33098	244K exoantigen -
45	15	23.8	7	2	PT0526	T-cell receptor be

ALIGNMENTS

RESULT 1
RHPGG
gonadoliberin - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 13-Jul-1981 #sequence_revision 13-Jul-1981 #text_change 18-Mar-1997
C;Accession: A01411
R;Baba, Y.; Matsuo, H.; Schally, A.V.
Biochem. Biophys. Res. Commun. 44, 459-463, 1971
A;Title: Structure of the porcine LH- and FSH-releasing hormone. II. Confirmation of the
A;Reference number: A90172; MUID:72114303; PMID:4946067
A;Accession: A01411
A;Molecule type: protein
A;Residues: 1-10 <BAB>
R;Matsuo, H.; Arimura, A.; Nair, R.M.G.; Schally, A.V.
Biochem. Biophys. Res. Commun. 45, 822-827, 1971
A;Title: Synthesis of the porcine LH- and FSH-releasing hormone by the solid-phase metho
A;Reference number: A90176; MUID:72065376; PMID:4942726
A;Contents: annotation; synthesis
A;Note: the synthetic and natural hormones have the same physicochemical and biological
R;Baba, Y.; Arimura, A.; Schally, A.V.
Biochem. Biophys. Res. Commun. 45, 483-487, 1971
A;Title: On the tryptophan residue in porcine LH and FSH-releasing hormone.
A;Reference number: A90175; MUID:72117544; PMID:4946275
A;Contents: annotation
A;Note: Trp-3 appears to be essential for biological activity
C;Comment: This hypothalamic hormone stimulates the secretion of both luteinizing and fo
C;Superfamily: gonadoliberin
C;Keywords: amidated carboxyl end; hormone; hypothalamus; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;10/Modified site: amidated carboxyl end (Gly) #status experimental

Query Match 95.2%; Score 60; DB 1; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.00028;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 EHWSYGLRPG 10
              :|||||||||
Db          1 QHWSYGLRPG 10
```

RESULT 2
RHSHG
gonadoliberin - sheep
C;Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Date: 31-Dec-1991 #sequence_revision 31-Dec-1991 #text_change 18-Mar-1997
C;Accession: A93780; A01411
R;Burgus, R.; Butcher, M.; Amoss, M.; Ling, N.; Monahan, M.; Rivier, J.; Fellows, R.; Bl
Proc. Natl. Acad. Sci. U.S.A. 69, 278-282, 1972
A;Title: Primary structure of the ovine hypothalamic luteinizing hormone-releasing facto
A;Reference number: A93780; MUID:72094314; PMID:4550508
A;Accession: A93780
A;Molecule type: protein

A;Residues: 1-10 <BUR>
A;Note: the natural and synthetic hormones have the same biological activity
C;Comment: This hypothalamic hormone stimulates the secretion of both luteinizing and fo
C;Superfamily: gonadoliberin
C;Keywords: amidated carboxyl end; hormone; hypothalamus; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;10/Modified site: amidated carboxyl end (Gly) #status experimental

Query Match 95.2%; Score 60; DB 1; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.00028;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EHWSYGLRPG 10
:|||||||||
Db 1 QHWSYGLRPG 10

RESULT 3
RHAQ1
gonadoliberin I - American alligator
N;Alternate names: gonadotropin-releasing hormone I
C;Species: Alligator mississippiensis (American alligator)
C;Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 18-Mar-1997
C;Accession: A60066
R;Lovejoy, D.A.; Fischer, W.H.; Parker, D.B.; McRory, J.E.; Park, M.; Lance, V.; Swanson
Regul. Pept. 33, 105-116, 1991
A;Title: Primary structure of two forms of gonadotropin-releasing hormone from brains of
A;Reference number: A60066; MUID:91352338; PMID:1882082
A;Accession: A60066
A;Molecule type: protein
A;Residues: 1-10 <LOV>
C;Superfamily: gonadoliberin
C;Keywords: amidated carboxyl end; hormone; hypothalamus; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;10/Modified site: amidated carboxyl end (Gly) #status experimental

Query Match 88.9%; Score 56; DB 1; Length 10;
Best Local Similarity 80.0%; Pred. No. 0.0013;
Matches 8; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EHWSYGLRPG 10
:||||||:||
Db 1 QHWSYGLQPG 10

RESULT 4
A21114
gonadoliberin - chum salmon
C;Species: Oncorhynchus keta (chum salmon)
C;Date: 10-Aug-1990 #sequence_revision 10-Aug-1990 #text_change 18-Jun-1993
C;Accession: A21114
R;Sherwood, N.; Eiden, L.; Brownstein, M.; Spiess, J.; Rivier, J.; Vale, W.
Proc. Natl. Acad. Sci. U.S.A. 80, 2794-2798, 1983
A;Title: Characterization of a teleost gonadotropin-releasing hormone.
A;Reference number: A21114; MUID:83195140; PMID:6341999
A;Accession: A21114
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-10 <SHE>

Query Match 74.6%; Score 47; DB 2; Length 10;
Best Local Similarity 70.0%; Pred. No. 0.045;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 EHWSYGLRPG 10
:||||| ||
Db 1 QHWSYGWLPG 10

RESULT 5
RHAQ2
gonadoliberin II - American alligator
N;Alternate names: gonadotropin-releasing hormone II
C;Species: Alligator mississippiensis (American alligator)
C;Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 18-Mar-1997
C;Accession: B60066
R;Lovejoy, D.A.; Fischer, W.H.; Parker, D.B.; McRory, J.E.; Park, M.; Lance, V.; Swanson
Regul. Pept. 33, 105-116, 1991
A;Title: Primary structure of two forms of gonadotropin-releasing hormone from brains of
A;Reference number: A60066; MUID:91352338; PMID:1882082
A;Accession: B60066
A;Molecule type: protein
A;Residues: 1-10 <LOV>
C;Superfamily: gonadoliberin
C;Keywords: amidated carboxyl end; hormone; hypothalamus; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;10/Modified site: amidated carboxyl end (Gly) #status experimental

Query Match 66.7%; Score 42; DB 1; Length 10;
Best Local Similarity 60.0%; Pred. No. 0.32;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 1 EHWSYGLRPG 10
:|||:| ||
Db 1 QHWSHGWYPG 10

RESULT 6
A61126
gonadoliberin - spotted ratfish
N;Alternate names: gonadotropin-releasing hormone
C;Species: Hydrolagus colliei (spotted ratfish)
C;Date: 26-May-1994 #sequence_revision 26-May-1994 #text_change 18-Mar-1997
C;Accession: A61126
R;Lovejoy, D.A.; Sherwood, N.M.; Fischer, W.H.; Jackson, B.C.; Rivier, J.E.; Lee, T.
Gen. Comp. Endocrinol. 82, 152-161, 1991
A;Title: Primary structure of gonadotropin-releasing hormone from the brain of a holocep
A;Reference number: A61126; MUID:91340067; PMID:1678723
A;Accession: A61126
A;Molecule type: protein
A;Residues: 1-10 <LOV>
A;Experimental source: brain
C;Superfamily: gonadoliberin
C;Keywords: amidated carboxyl end; brain; hormone; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;10/Modified site: amidated carboxyl end (Gly) #status experimental

Query Match 66.7%; Score 42; DB 1; Length 10;
Best Local Similarity 60.0%; Pred. No. 0.32;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 1 EHWSYGLRPG 10
:|||:| ||
Db 1 QHWSHGWYPG 10

RESULT 7
B46030
gonadoliberin II - spiny dogfish
N;Alternate names: gonadotropin-releasing hormone
C;Species: Squalus acanthias (spiny dogfish)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 20-Jan-2003
C;Accession: B46030
R;Lovejoy, D.A.; Fischer, W.H.; Ngamvongchon, S.; Craig, A.G.; Nahorniak, C.S.; Peter,
Proc. Natl. Acad. Sci. U.S.A. 89, 6373-6377, 1992
A;Title: Distinct sequence of gonadotropin-releasing hormone (GnRH) in dogfish brain pr
A;Reference number: A46030; MUID:92335300; PMID:1631133
A;Accession: B46030
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-10 <LOV>
C;Superfamily: gonadoliberin
C;Keywords: hormone; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental

Query Match 66.7%; Score 42; DB 2; Length 10;

```
  Best Local Similarity   60.0%;  Pred. No. 0.32;
  Matches    6;  Conservative    2;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|||:|  ||
Db          1 QHWSHGWYPG 10


RESULT 8
A49187
gonadotropin-releasing hormone III - sea lamprey
C;Species: Petromyzon marinus (sea lamprey)
C;Date: 19-Dec-1993 #sequence_revision 18-Nov-1994 #text_change 03-Mar-1995
C;Accession: A49187
R;Sower, S.A.; Chiang, Y.C.; Lovas, S.; Conlon, J.M.
Endocrinology 132, 1125-1131, 1993
A;Title: Primary structure and biological activity of a third gonadotropin-releasing hor
A;Reference number: A49187; MUID:93178316; PMID:8440174
A;Accession: A49187
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-10 <SOW>
A;Experimental source: brain
A;Note: sequence extracted from NCBI backbone (NCBIP:126381)

  Query Match             66.7%;  Score 42;  DB 2;  Length 10;
  Best Local Similarity   60.0%;  Pred. No. 0.32;
  Matches    6;  Conservative    2;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||:  :||
Db          1 EHWSHDWKPG 10


RESULT 9
A46030
gonadoliberin I - spiny dogfish
N;Alternate names: gonadotropin-releasing hormone
C;Species: Squalus acanthias (spiny dogfish)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 16-Dec-1998
C;Accession: A46030
R;Lovejoy, D.A.; Fischer, W.H.; Ngamvongchon, S.; Craig, A.G.; Nahorniak, C.S.; Peter, R
Proc. Natl. Acad. Sci. U.S.A. 89, 6373-6377, 1992
A;Title: Distinct sequence of gonadotropin-releasing hormone (GnRH) in dogfish brain prc
A;Reference number: A46030; MUID:92335300; PMID:1631133
A;Accession: A46030
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-10 <LOV>
C;Keywords: hormone; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental

  Query Match             66.7%;  Score 42;  DB 2;  Length 10;
  Best Local Similarity   60.0%;  Pred. No. 0.32;
  Matches    6;  Conservative    2;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|||:|  ||
Db          1 QHWSHGWLPG 10


RESULT 10
RHLMGS
gonadoliberin - sea lamprey
N;Alternate names: gonadotropin releasing hormone (GnRH)
C;Species: Petromyzon marinus (sea lamprey)
C;Date: 17-Mar-1987 #sequence_revision 17-Mar-1987 #text_change 18-Mar-1997
C;Accession: A01412
R;Sherwood, N.M.; Sower, S.A.; Marshak, D.R.; Fraser, B.A.; Brownstein, M.J.
J. Biol. Chem. 261, 4812-4819, 1986
A;Title: Primary structure of gonadotropin-releasing hormone from lamprey brain.
A;Reference number: A01412; MUID:86168192; PMID:3514603
A;Accession: A01412
A;Molecule type: protein
A;Residues: 1-10 <SHE>
C;Comment: This hormone was isolated from the brain.
C;Superfamily: gonadoliberin
C;Keywords: amidated carboxyl end; hormone; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;10/Modified site: amidated carboxyl end (Gly) #status experimental

  Query Match             41.3%;  Score 26;  DB 1;  Length 10;
  Best Local Similarity   40.0%;  Pred. No. 1.7e+02;
  Matches    4;  Conservative    3;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|:|   :||
Db          1 QHYSLEWKPG 10


RESULT 11
PQ0177
neuromedin C - laughing frog
C;Species: Rana ridibunda (laughing frog)
C;Date: 23-Nov-1991 #sequence_revision 23-Nov-1991 #text_change 11-Jan-2000
C;Accession: PQ0177
R;Conlon, J.M.; O'Harte, F.; Vaudry, H.
Biochem. Biophys. Res. Commun. 178, 526-530, 1991
A;Title: Primary structures of the bombesin-like neuropeptides in frog brain show that b
A;Reference number: PQ0177; MUID:91315477; PMID:1859413
A;Accession: PQ0177
A;Molecule type: protein
A;Residues: 1-10 <CON>
A;Experimental source: brain
C;Superfamily: gastrin-releasing peptide
C;Keywords: amidated carboxyl end
F;10/Modified site: amidated carboxyl end (Met) #status predicted

  Query Match             39.7%;  Score 25;  DB 2;  Length 10;
  Best Local Similarity   60.0%;  Pred. No. 2.4e+02;
  Matches    3;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 HWSYG 6
              ||: |
Db          3 HWAVG 7


RESULT 12
A60647
neuromedin C - bovine
C;Species: Bos primigenius taurus (cattle)
C;Date: 14-May-1993 #sequence_revision 14-May-1993 #text_change 07-May-1999
C;Accession: A60647
R;Lemaire, S.; Trifaro, J.M.; Chouinard, L.; Cecyre, D.; Dessureault, J.; Mercier, P.; D
Peptides 10, 355-360, 1989
A;Title: Structural identification, subcellular localization and secretion of bovine adr
A;Reference number: A60647; MUID:89331342; PMID:2755876
A;Accession: A60647
A;Molecule type: protein
A;Residues: 1-10 <LEM>
A;Note: this neuropeptide was purified from secretory granules of cells in the adrenal m
C;Superfamily: gastrin-releasing peptide
C;Keywords: adrenal gland; neuropeptide

  Query Match             39.7%;  Score 25;  DB 2;  Length 10;
  Best Local Similarity   60.0%;  Pred. No. 2.4e+02;
  Matches    3;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 HWSYG 6
              ||: |
Db          3 HWAVG 7


RESULT 13
PT0299
Ig heavy chain CRD3 region (clone 5-103B) - human (fragment)
```

C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0299
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0299
A;Molecule type: DNA
A;Residues: 1-9 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

Query Match 34.9%; Score 22; DB 2; Length 9;
Best Local Similarity 60.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1 EHWSY 5
| | |
Db 2 ESWDY 6

RESULT 14
PT0281
Ig heavy chain CRD3 region (clone 4-91C) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0281
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0281
A;Molecule type: DNA
A;Residues: 1-5 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

Query Match 33.3%; Score 21; DB 2; Length 5;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EHWS 4
|:||
Db 2 ENWS 5

RESULT 15
S39437
D-amino-acid oxidase (EC 1.4.3.3) - Trigonopsis variabilis (fragment)
C;Species: Trigonopsis variabilis
C;Date: 19-Mar-1997 #sequence_revision 05-Dec-1997 #text_change 07-May-1999
C;Accession: S39437
R;Schraeder, T.; Andreesen, J.R.
Eur. J. Biochem. 218, 735-744, 1993
A;Title: Evidence for the functional importance of Cys298 in D-amino acid oxidase from T
A;Reference number: S39437; MUID:94094869; PMID:7903639
A;Accession: S39437
A;Molecule type: protein
A;Residues: 1-9 <SCH>
A;Experimental source: CBS 4095
C;Function:
A;Description: oxidoreductase; catalyzes the oxidation of D-amino acids to their corresp
A;Note: reoxidation of the enzyme by molecular oxygen is accompanied by the release of h
C;Keywords: FAD; oxidoreductase

Query Match 33.3%; Score 21; DB 2; Length 9;
Best Local Similarity 80.0%; Pred. No. 2.8e+05;
Matches 4; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 6 GLRPG 10
| |||
Db 3 GHRPG 7

Search completed: November 17, 2003, 18:24:12
Job time : 23 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:07:28 ; Search time 10 Seconds
(without alignments)
47.027 Million cell updates/sec

Title: US-09-462-089-1
Perfect score: 63
Sequence: 1 EHWSYGLRPG 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 127863 seqs, 47026705 residues

Total number of hits satisfying chosen parameters: 372

Minimum DB seq length: 0
Maximum DB seq length: 10

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_41:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	56	88.9	10	1	GON1_ALLMI	P37041 alligator m
2	49	77.8	10	1	GON1_CLUPA	P81749 clupea pall
3	47	74.6	10	1	GON3_ONCKE	P20367 oncorhynchu
4	42	66.7	10	1	GON2_CHICK	P37043 gallus gall
5	42	66.7	10	1	GONL_SQUAC	P27429 squalus aca
6	39	61.9	10	1	GON3_PETMA	P30948 petromyzon
7	34	54.0	10	1	GON1_CHEPR	P80677 chelyosoma
8	30	47.6	10	1	GON2_CHEPR	P80678 chelyosoma
9	26	41.3	10	1	GON1_PETMA	P04378 petromyzon
10	25	39.7	10	1	GRP_RANRI	P23260 rana ridibu
11	24	38.1	8	1	ALL1_CYDPO	P82152 cydia pomon
12	23	36.5	8	1	AL16_CARMA	P81819 carcinus ma
13	19	30.2	5	1	AL14_CARMA	P81817 carcinus ma
14	19	30.2	7	1	ALL2_CARMA	P81805 carcinus ma
15	19	30.2	7	1	ALL3_CARMA	P81806 carcinus ma
16	19	30.2	8	1	AL15_CARMA	P81818 carcinus ma
17	19	30.2	8	1	AL17_CARMA	P81820 carcinus ma
18	19	30.2	8	1	AL18_CARMA	P81821 carcinus ma
19	19	30.2	8	1	ALL3_CYDPO	P82154 cydia pomon
20	19	30.2	8	1	ALL4_CALVO	P41840 calliphora
21	19	30.2	8	1	ALL4_CYDPO	P82155 cydia pomon
22	19	30.2	9	1	LITO_LITAU	P08945 litoria aur
23	19	30.2	9	1	TKC1_CALVO	P41517 calliphora
24	19	30.2	9	1	TKL1_LOCMI	P16223 locusta mig
25	19	30.2	10	1	AL19_CARMA	P81822 carcinus ma
26	19	30.2	10	1	TKL2_LOCMI	P16224 locusta mig
27	19	30.2	10	1	TKL3_LOCMI	P30249 locusta mig
28	18	28.6	10	1	HTF_TABAT	P14596 tabanus atr
29	17	27.0	9	1	UPA6_HUMAN	P30092 homo sapien
30	17	27.0	10	1	COXO_THUOB	P80982 thunnus obe
31	17	27.0	10	1	PAP1_PARMA	P81863 pardachirus
32	17	27.0	10	1	TKN1_SCYCA	P08608 scyliorhinu
33	17	27.0	10	1	TKNB_RANCA	P22689 rana catesb
34	17	27.0	10	1	TKS1_AEDAE	P42634 aedes aegyp
35	17	27.0	10	1	TKS2_AEDAE	P42635 aedes aegyp
36	16	25.4	7	1	ALL4_CARMA	P81807 carcinus ma
37	16	25.4	7	1	ALL5_CARMA	P81808 carcinus ma
38	16	25.4	8	1	AL12_CARMA	P81815 carcinus ma
39	16	25.4	8	1	ALL6_CYDPO	P82157 cydia pomon
40	16	25.4	8	1	ALL7_CARMA	P81809 carcinus ma
41	16	25.4	8	1	ALL8_CARMA	P81811 carcinus ma
42	16	25.4	8	1	ALL9_CARMA	P81812 carcinus ma
43	16	25.4	9	1	AL10_CARMA	P81813 carcinus ma
44	16	25.4	9	1	AL11_CARMA	P81814 carcinus ma
45	16	25.4	9	1	LITR_PHYRO	P08946 phyllomedus

ALIGNMENTS

RESULT 1
GON1_ALLMI
ID GON1_ALLMI STANDARD; PRT; 10 AA.
AC P37041; P20407;
DT 01-FEB-1991 (Rel. 17, Created)
DT 01-FEB-1991 (Rel. 17, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Gonadoliberin I (Gonadotropin-releasing hormone I) (GnRH-I) (LH-RH I)
DE (Luliberin I).
OS Alligator mississippiensis (American alligator).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Crocodylidae; Alligatorinae; Alligator.
OX NCBI_TaxID=8496;
RN [1]
RP SEQUENCE.
RC TISSUE=Brain;
RX MEDLINE=91352338; PubMed=1882082;
RA Lovejoy D.A., Fischer W.H., Parker D.B., McRory J.E., Park M.,
RA Lance V., Swanson P., Rivier J.E., Sherwood N.M.;
RT "Primary structure of two forms of gonadotropin-releasing hormone
RT from brains of the American alligator (Alligator mississippiensis).";
RL Regul. Pept. 33:105-116(1991).
CC -!- FUNCTION: Stimulates the secretion of gonadotropins.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: Belongs to the GNRH family.
DR PIR; A60066; RHAQ1.
DR InterPro; IPR002012; GnRH.
DR Pfam; PF00446; GnRH; 1.
DR PROSITE; PS00473; GNRH; 1.
KW Hormone; Amidation; Hypothalamus; Pyrrolidone carboxylic acid.
FT MOD_RES 1 1 PYRROLIDONE CARBOXYLIC ACID.
FT MOD_RES 10 10 AMIDATION.
SQ SEQUENCE 10 AA; 1172 MW; 284B23D7286B45A3 CRC64;

Query Match 88.9%; Score 56; DB 1; Length 10;
Best Local Similarity 80.0%; Pred. No. 0.00035;
Matches 8; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 EHWSYGLRPG 10
              :|||||||:||
Db          1 QHWSYGLQPG 10
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RESULT 2
GON1_CLUPA
ID GON1_CLUPA STANDARD; PRT; 10 AA.
AC P81749;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Gonadoliberin I (Gonadotropin-releasing hormone I) (GnRH-I) (LH-RH)
DE (Luliberin I).
GN GNRH1.
OS Clupea pallasii (Pacific herring).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Clupeomorpha; Clupeidae;

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OC   Clupea.
OX   NCBI_TaxID=30724;
RN   [1]
RP   SEQUENCE, AND FUNCTION.
RC   TISSUE=Brain, and Pituitary;
RX   MEDLINE=20114351; PubMed=10650929;
RA   Carolsfeld J., Powell J.F.F., Park M., Fischer W.H., Craig A.G.,
RA   Chang J.P., Rivier J.E., Sherwood N.M.;
RT   "Primary structure and function of three gonadotropin-releasing
RT   hormones, including a novel form, from an ancient teleost, herring.";
RL   Endocrinology 141:505-512(2000).
CC   -!- FUNCTION: Stimulates the secretion of gonadotropins.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the GNRH family.
DR   InterPro; IPR002012; GnRH.
DR   Pfam; PF00446; GnRH; 1.
DR   PROSITE; PS00473; GNRH; 1.
KW   Hormone; Amidation; Hypothalamus; Pyrrolidone carboxylic acid.
FT   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   MOD_RES      10     10       AMIDATION.
SQ   SEQUENCE   10 AA;  1105 MW;  284B20B72871F5A3 CRC64;

  Query Match             77.8%;  Score 49;  DB 1;  Length 10;
  Best Local Similarity   70.0%;  Pred. No. 0.006;
  Matches    7;  Conservative    2;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|||:|| ||
Db          1 QHWSHGLSPG 10


RESULT 3
GON3_ONCKE
ID   GON3_ONCKE     STANDARD;      PRT;    10 AA.
AC   P20367; P81751;
DT   01-FEB-1991 (Rel. 17, Created)
DT   01-FEB-1991 (Rel. 17, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Gonadoliberin III (Gonadotropin-releasing hormone III) (GnRH-III) (LH-
DE   RH III) (Luliberin III).
GN   GNRH3.
OS   Oncorhynchus keta (Chum salmon), and
OS   Clupea pallasii (Pacific herring).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC   Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OX   NCBI_TaxID=8018, 30724;
RN   [1]
RP   SEQUENCE.
RC   SPECIES=O.keta;
RX   MEDLINE=83195140; PubMed=6341999;
RA   Sherwood N., Eiden L., Brownstein M., Spiess J., Rivier J., Vale W.;
RT   "Characterization of a teleost gonadotropin-releasing hormone.";
RL   Proc. Natl. Acad. Sci. U.S.A. 80:2794-2798(1983).
RN   [2]
RP   SEQUENCE, AND FUNCTION.
RC   SPECIES=C.pallasii; TISSUE=Brain, and Pituitary;
RX   MEDLINE=20114351; PubMed=10650929;
RA   Carolsfeld J., Powell J.F.F., Park M., Fischer W.H., Craig A.G.,
RA   Chang J.P., Rivier J.E., Sherwood N.M.;
RT   "Primary structure and function of three gonadotropin-releasing
RT   hormones, including a novel form, from an ancient teleost, herring.";
RL   Endocrinology 141:505-512(2000).
CC   -!- FUNCTION: Stimulates the secretion of gonadotropins; it stimulates
CC       the secretion of both luteinizing and follicle-stimulating
CC       hormones.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the GNRH family.
DR   PIR; A21114; A21114.
DR   InterPro; IPR002012; GnRH.
DR   Pfam; PF00446; GnRH; 1.
DR   PROSITE; PS00473; GNRH; 1.
KW   Hormone; Amidation; Hypothalamus; Pyrrolidone carboxylic acid.
FT   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   MOD_RES      10     10       AMIDATION.
SQ   SEQUENCE   10 AA;  1230 MW;  284B3233786B45A3 CRC64;

  Query Match             74.6%;  Score 47;  DB 1;  Length 10;
  Best Local Similarity   70.0%;  Pred. No. 0.014;
  Matches    7;  Conservative    1;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|||||  ||
Db          1 QHWSYGWLPG 10


RESULT 4
GON2_CHICK
ID   GON2_CHICK     STANDARD;      PRT;    10 AA.
AC   P37043; P20408; P81750;
DT   01-FEB-1991 (Rel. 17, Created)
DT   01-FEB-1991 (Rel. 17, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Gonadoliberin II (Gonadotropin-releasing hormone II) (GnRH-II)
DE   (LH-RH II) (Luliberin II).
OS   Gallus gallus (Chicken),
OS   Alligator mississippiensis (American alligator),
OS   Squalus acanthias (Spiny dogfish),
OS   Hydrolagus colliei (Spotted ratfish) (Pacific ratfish), and
OS   Clupea pallasii (Pacific herring).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC   Gallus.
OX   NCBI_TaxID=9031, 8496, 7797, 7873, 30724;
RN   [1]
RP   SEQUENCE.
RC   SPECIES=Chicken; TISSUE=Hypothalamus;
RX   MEDLINE=84222059; PubMed=6427779;
RA   Miyamoto K., Hasegawa Y., Nomura M., Igarashi M., Kangawa K.,
RA   Matsuo H.;
RT   "Identification of the second gonadotropin-releasing hormone in
RT   chicken hypothalamus: evidence that gonadotropin secretion is
RT   probably controlled by two distinct gonadotropin-releasing hormones
RT   in avian species.";
RL   Proc. Natl. Acad. Sci. U.S.A. 81:3874-3878(1984).
RN   [2]
RP   SEQUENCE.
RC   SPECIES=A.mississippiensis; TISSUE=Brain;
RX   MEDLINE=91352338; PubMed=1882082;
RA   Lovejoy D.A., Fischer W.H., Parker D.B., McRory J.E., Park M.,
RA   Lance V., Swanson P., Rivier J.E., Sherwood N.M.;
RT   "Primary structure of two forms of gonadotropin-releasing hormone
RT   from brains of the American alligator (Alligator mississippiensis).";
RL   Regul. Pept. 33:105-116(1991).
RN   [3]
RP   SEQUENCE.
RC   SPECIES=S.acanthias; TISSUE=Brain;
RX   MEDLINE=92335300; PubMed=1631133;
RA   Lovejoy D.A., Fischer W.H., Ngamvongchon S., Craig A.G.,
RA   Nahorniak C.S., Peter R.E., Rivier J.E., Sherwood N.M.;
RT   "Distinct sequence of gonadotropin-releasing hormone (GnRH) in
RT   dogfish brain provides insight into GnRH evolution.";
RL   Proc. Natl. Acad. Sci. U.S.A. 89:6373-6377(1992).
RN   [4]
RP   SEQUENCE.
RC   SPECIES=H.colliei; TISSUE=Brain;
RX   MEDLINE=91340067; PubMed=1678723;
RA   Lovejoy D.A., Sherwood N.M., Fischer W.H., Jackson B.C., Rivier J.E.,
RA   Lee T.;
RT   "Primary structure of gonadotropin-releasing hormone from the brain
RT   of a holocephalan (ratfish: Hydrolagus colliei).";
RL   Gen. Comp. Endocrinol. 82:152-161(1991).
RN   [5]
RP   SEQUENCE, AND FUNCTION.
RC   SPECIES=C.pallasii; TISSUE=Brain, and Pituitary;
RX   MEDLINE=20114351; PubMed=10650929;
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RA   Carolsfeld J., Powell J.F.F., Park M., Fischer W.H., Craig A.G.,
RA   Chang J.P., Rivier J.E., Sherwood N.M.;
RT   "Primary structure and function of three gonadotropin-releasing
RT   hormones, including a novel form, from an ancient teleost, herring.";
RL   Endocrinology 141:505-512(2000).
CC   -!- FUNCTION: Stimulates the secretion of gonadotropins.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the GNRH family.
DR   PIR; A61126; A61126.
DR   PIR; B46030; B46030.
DR   PIR; B60066; RHAQ2.
DR   InterPro; IPR002012; GnRH.
DR   Pfam; PF00446; GnRH; 1.
DR   PROSITE; PS00473; GNRH; 1.
KW   Hormone; Amidation; Hypothalamus; Pyrrolidone carboxylic acid.
FT   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   MOD_RES      10     10       AMIDATION.
SQ   SEQUENCE   10 AA;  1254 MW;  284B2E437871F5A3 CRC64;

  Query Match             66.7%;  Score 42;  DB 1;  Length 10;
  Best Local Similarity   60.0%;  Pred. No. 0.1;
  Matches    6;  Conservative    2;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|||:|  ||
Db          1 QHWSHGWYPG 10


RESULT 5
GONL_SQUAC
ID   GONL_SQUAC     STANDARD;      PRT;    10 AA.
AC   P27429;
DT   01-AUG-1992 (Rel. 23, Created)
DT   01-AUG-1992 (Rel. 23, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Gonadoliberin (Gonadotropin-releasing hormone) (GnRH) (LH-RH)
DE   (Luliberin).
OS   Squalus acanthias (Spiny dogfish).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;
OC   Elasmobranchii; Squalea; Squaloidei; Squalidae; Squalus.
OX   NCBI_TaxID=7797;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Brain;
RX   MEDLINE=92335300; PubMed=1631133;
RA   Lovejoy D.A., Fischer W.H., Ngamvongchon S., Craig A.G.,
RA   Nahorniak C.S., Peter R.E., Rivier J.E., Sherwood N.M.;
RT   "Distinct sequence of gonadotropin-releasing hormone (GnRH) in
RT   dogfish brain provides insight into GnRH evolution.";
RL   Proc. Natl. Acad. Sci. U.S.A. 89:6373-6377(1992).
CC   -!- FUNCTION: STIMULATES THE SECRETION OF GONADOTROPINS.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the GNRH family.
DR   PIR; A46030; A46030.
DR   InterPro; IPR002012; GnRH.
DR   Pfam; PF00446; GnRH; 1.
DR   PROSITE; PS00473; GNRH; 1.
KW   Hormone; Amidation; Hypothalamus; Pyrrolidone carboxylic acid.
FT   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   MOD_RES      10     10       AMIDATION.
SQ   SEQUENCE   10 AA;  1204 MW;  284B32337871F5A3 CRC64;

  Query Match             66.7%;  Score 42;  DB 1;  Length 10;
  Best Local Similarity   60.0%;  Pred. No. 0.1;
  Matches    6;  Conservative    2;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|||:|  ||
Db          1 QHWSHGWLPG 10


RESULT 6
GON3_PETMA
ID   GON3_PETMA     STANDARD;      PRT;    10 AA.
AC   P30948;
DT   01-JUL-1993 (Rel. 26, Created)
DT   01-JUL-1993 (Rel. 26, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Gonadoliberin III (Gonadotropin-releasing hormone III) (GnRH-III)
DE   (Luliberin III).
OS   Petromyzon marinus (Sea lamprey).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Hyperoartia;
OC   Petromyzontiformes; Petromyzontidae; Petromyzon.
OX   NCBI_TaxID=7757;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Brain;
RX   MEDLINE=93178316; PubMed=8440174;
RA   Sower S.A., Chiang Y.-C., Lovas S., Conlon J.M.;
RT   "Primary structure and biological activity of a third gonadotropin-
RT   releasing hormone from lamprey brain.";
RL   Endocrinology 132:1125-1131(1993).
CC   -!- FUNCTION: Stimulates the secretion of gonadotropins; it stimulates
CC       the secretion of both luteinizing and follicle-stimulating
CC       hormones.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the GNRH family.
DR   InterPro; IPR002012; GnRH.
DR   Pfam; PF00446; GnRH; 1.
DR   PROSITE; PS00473; GNRH; 1.
KW   Hormone; Amidation; Hypothalamus; Pyrrolidone carboxylic acid.
FT   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   MOD_RES      10     10       AMIDATION.
SQ   SEQUENCE   10 AA;  1277 MW;  284B36237AA1F5A3 CRC64;

  Query Match             61.9%;  Score 39;  DB 1;  Length 10;
  Best Local Similarity   50.0%;  Pred. No. 0.36;
  Matches    5;  Conservative    3;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|||:  :||
Db          1 QHWSHDWKPG 10


RESULT 7
GON1_CHEPR
ID   GON1_CHEPR     STANDARD;      PRT;    10 AA.
AC   P80677;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Gonadoliberin I (Gonadotropin-releasing hormone I) (GnRH-I)
DE   (Luliberin I).
OS   Chelyosoma productum.
OC   Eukaryota; Metazoa; Chordata; Urochordata; Ascidiacea; Enterogona;
OC   Phlebobranchia; Corellidae; Chelyosoma.
OX   NCBI_TaxID=71177;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=96413669; PubMed=8816823;
RA   Powell J.F.F., Reska-Skinner S.M., Prakash M.O., Fischer W.H.,
RA   Park M., Rivier J.E., Craig A.G., Mackie G.O., Sherwood N.M.;
RT   "Two new forms of gonadotropin-releasing hormone in a protochordate
RT   and the evolutionary implications.";
RL   Proc. Natl. Acad. Sci. U.S.A. 93:10461-10464(1996).
CC   -!- FUNCTION: Stimulates the secretion of gonadotropins; it stimulates
CC       the secretion of both luteinizing and follicle-stimulating
CC       hormones.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: GNRH NEURONS LIE WITHIN BLOOD SINUSES CLOSE TO
CC       THE GONODUCTS AND GONADS IN BOTH JUVENILES AND ADULTS, IMPLYING
CC       THAT THE NEUROPEPTIDE IS RELEASED INTO THE BLOODSTREAM.
CC   -!- MASS SPECTROMETRY: MW=1246.56; METHOD=MALDI.
CC   -!- SIMILARITY: Belongs to the GNRH family.
DR   InterPro; IPR002012; GnRH.
DR   Pfam; PF00446; GnRH; 1.
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DR   PROSITE; PS00473; GNRH; 1.
KW   Hormone; Amidation; Pyrrolidone carboxylic acid.
FT   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   MOD_RES      10     10       AMIDATION (BY SIMILARITY).
SQ   SEQUENCE   10 AA;  1264 MW;  284B3639DB5AB5A3 CRC64;

  Query Match             54.0%;  Score 34;  DB 1;  Length 10;
  Best Local Similarity   50.0%;  Pred. No. 2.7;
  Matches    5;  Conservative    2;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|||   :||
Db          1 QHWSDYFKPG 10


RESULT 8
GON2_CHEPR
ID   GON2_CHEPR     STANDARD;      PRT;    10 AA.
AC   P80678;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Gonadoliberin II (Gonadotropin-releasing hormone II) (GnRH-II)
DE   (Luliberin II).
OS   Chelyosoma productum.
OC   Eukaryota; Metazoa; Chordata; Urochordata; Ascidiacea; Enterogona;
OC   Phlebobranchia; Corellidae; Chelyosoma.
OX   NCBI_TaxID=71177;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=96413669; PubMed=8816823;
RA   Powell J.F.F., Reska-Skinner S.M., Prakash M.O., Fischer W.H.,
RA   Park M., Rivier J.E., Craig A.G., Mackie G.O., Sherwood N.M.;
RT   "Two new forms of gonadotropin-releasing hormone in a protochordate
RT   and the evolutionary implications.";
RL   Proc. Natl. Acad. Sci. U.S.A. 93:10461-10464(1996).
CC   -!- FUNCTION: Stimulates the secretion of gonadotropins; it stimulates
CC       the secretion of both luteinizing and follicle-stimulating
CC       hormones.
CC   -!- SUBUNIT: Homodimer; disulfide-linked.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: GNRH NEURONS LIE WITHIN BLOOD SINUSES CLOSE TO
CC       THE GONODUCTS AND GONADS IN BOTH JUVENILES AND ADULTS, IMPLYING
CC       THAT THE NEUROPEPTIDE IS RELEASED INTO THE BLOODSTREAM.
CC   -!- MASS SPECTROMETRY: MW=1117.52; METHOD=MALDI.
CC   -!- SIMILARITY: Belongs to the GNRH family.
DR   InterPro; IPR002012; GnRH.
DR   PROSITE; PS00473; GNRH; 1.
KW   Hormone; Amidation; Pyrrolidone carboxylic acid.
FT   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   DISULFID      6      6       INTERCHAIN.
FT   MOD_RES      10     10       AMIDATION (BY SIMILARITY).
SQ   SEQUENCE   10 AA;  1135 MW;  284B38D1EEB735A3 CRC64;

  Query Match             47.6%;  Score 30;  DB 1;  Length 10;
  Best Local Similarity   50.0%;  Pred. No. 14;
  Matches    5;  Conservative    1;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|||    ||
Db          1 QHWSLCHAPG 10


RESULT 9
GON1_PETMA
ID   GON1_PETMA     STANDARD;      PRT;    10 AA.
AC   P04378;
DT   20-MAR-1987 (Rel. 04, Created)
DT   20-MAR-1987 (Rel. 04, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Gonadoliberin I (Gonadotropin-releasing hormone I) (GnRH-I)
DE   (Luliberin I).
OS   Petromyzon marinus (Sea lamprey).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Hyperoartia;
OC   Petromyzontiformes; Petromyzontidae; Petromyzon.
OX   NCBI_TaxID=7757;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Brain;
RX   MEDLINE=86168192; PubMed=3514603;
RA   Sherwood N.M., Sower S.A., Marshak D.R., Fraser B.A., Brownstein M.J.;
RT   "Primary structure of gonadotropin-releasing hormone from lamprey
RT   brain.";
RL   J. Biol. Chem. 261:4812-4819(1986).
CC   -!- FUNCTION: Stimulates the secretion of gonadotropins; it stimulates
CC       the secretion of both luteinizing and follicle-stimulating
CC       hormones.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the GNRH family.
DR   PIR; A01412; RHLMGS.
DR   InterPro; IPR002012; GnRH.
DR   Pfam; PF00446; GnRH; 1.
DR   PROSITE; PS00473; GNRH; 1.
KW   Hormone; Amidation; Hypothalamus; Pyrrolidone carboxylic acid.
FT   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   MOD_RES      10     10       AMIDATION.
SQ   SEQUENCE   10 AA;  1244 MW;  1E4B36237B1735AB CRC64;

  Query Match             41.3%;  Score 26;  DB 1;  Length 10;
  Best Local Similarity   40.0%;  Pred. No. 71;
  Matches    4;  Conservative    3;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|:|   :||
Db          1 QHYSLEWKPG 10


RESULT 10
GRP_RANRI
ID   GRP_RANRI      STANDARD;      PRT;    10 AA.
AC   P23260;
DT   01-NOV-1991 (Rel. 20, Created)
DT   01-NOV-1991 (Rel. 20, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Neuromedin C.
OS   Rana ridibunda (Laughing frog) (Marsh frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OX   NCBI_TaxID=8406;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Brain;
RX   MEDLINE=91315477; PubMed=1859413;
RA   Conlon J.M., O'Harte F., Vaudry H.;
RT   "Primary structures of the bombesin-like neuropeptides in frog brain
RT   show that bombesin is not the amphibian gastrin-releasing peptide.";
RL   Biochem. Biophys. Res. Commun. 178:526-530(1991).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: BELONGS TO THE BOMBESIN/NEUROMEDIN B/RANATENSIN
CC       FAMILY.
DR   PIR; PQ0177; PQ0177.
DR   InterPro; IPR000874; Bombesin.
DR   Pfam; PF02044; Bombesin; 1.
DR   PROSITE; PS00257; BOMBESIN; 1.
KW   Bombesin family; Amidation.
FT   MOD_RES      10     10       AMIDATION.
SQ   SEQUENCE   10 AA;  1094 MW;  F81FBAE862CDC371 CRC64;

  Query Match             39.7%;  Score 25;  DB 1;  Length 10;
  Best Local Similarity   60.0%;  Pred. No. 1.1e+02;
  Matches    3;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 HWSYG 6
              ||: |
Db          3 HWAVG 7
```

```
RESULT 11
ALL1_CYDPO
ID   ALL1_CYDPO     STANDARD;      PRT;     8 AA.
AC   P82152;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Cydiastatin 1.
OS   Cydia pomonella (Codling moth).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
OC   Tortricoidea; Tortricidae; Olethreutinae; Cydia.
OX   NCBI_TaxID=82600;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Larva;
RX   MEDLINE=98054539; PubMed=9392829;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Winstanley D.,
RA   Davey M., East P.D., Thorpe A.;
RT   "Lepidopteran peptides of the allatostatin superfamily.";
RL   Peptides 18:1301-1309(1997).
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation.
FT   MOD_RES       8       8       AMIDATION.
SQ   SEQUENCE   8 AA;  934 MW;  C82879C45B51F775 CRC64;

  Query Match             38.1%;  Score 24;  DB 1;  Length 8;
  Best Local Similarity   50.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 HWSYGL 7
              |:::||
Db          3 HYNFGL 8


RESULT 12
AL16_CARMA
ID   AL16_CARMA     STANDARD;      PRT;     8 AA.
AC   P81819;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 16.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation; Multigene family.
FT   MOD_RES       8       8       AMIDATION.
SQ   SEQUENCE   8 AA;  813 MW;  7C286B45AB476878 CRC64;

  Query Match             36.5%;  Score 23;  DB 1;  Length 8;
  Best Local Similarity   80.0%;  Pred. No. 1.3e+05;
  Matches    4;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 WSYGL 7
              :||||
Db          4 YSYGL 8


RESULT 13
AL14_CARMA
ID   AL14_CARMA     STANDARD;      PRT;     5 AA.
AC   P81817;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 14.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation; Multigene family.
FT   MOD_RES       5       5       AMIDATION (POTENTIAL).
SQ   SEQUENCE   5 AA;  586 MW;  672879D5AB300000 CRC64;

  Query Match             30.2%;  Score 19;  DB 1;  Length 5;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 WSYGL 7
              :|:||
Db          1 YSFGL 5


RESULT 14
ALL2_CARMA
ID   ALL2_CARMA     STANDARD;      PRT;     7 AA.
AC   P81805;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 2.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation; Multigene family.
FT   MOD_RES       7       7       AMIDATION (POTENTIAL).
SQ   SEQUENCE   7 AA;  770 MW;  672879CDCB5DDB70 CRC64;

  Query Match             30.2%;  Score 19;  DB 1;  Length 7;
  Best Local Similarity   42.9%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    3;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 EHWSYGL 7
              | :::||
Db          1 EAYAFGL 7
```

```
RESULT 15
ALL3_CARMA
ID   ALL3_CARMA     STANDARD;      PRT;     7 AA.
AC   P81806;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 3.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Multigene family.
SQ   SEQUENCE   7 AA;  796 MW;  672879CDCB476B70 CRC64;

  Query Match             30.2%;  Score 19;  DB 1;  Length 7;
  Best Local Similarity   42.9%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    3;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 EHWSYGL 7
              | :::|| 
Db          1 EPYAFGL 7


Search completed: November 17, 2003, 18:22:18
Job time : 11 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:18:33 ; Search time 33 Seconds
(without alignments)
78.198 Million cell updates/sec

Title: US-09-462-089-1
Perfect score: 63
Sequence: 1 EHWSYGLRPG 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 830525 seqs, 258052604 residues

Total number of hits satisfying chosen parameters: 1349

Minimum DB seq length: 0
Maximum DB seq length: 10

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SPTREMBL_23:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	20	31.7	10	8	Q958J8	Q958j8 rana muscos
2	19	30.2	8	6	O02831	O02831 oryctolagus
3	19	30.2	8	8	Q94PX5	Q94px5 felis silve
4	19	30.2	8	8	Q94PX7	Q94px7 felis silve
5	19	30.2	8	8	Q94PX6	Q94px6 felis libyc
6	19	30.2	9	8	Q8W8X4	Q8w8x4 diadema mex
7	19	30.2	10	13	Q8JFE7	Q8jfe7 ficedula al
8	19	30.2	10	13	Q8JJ33	Q8jj33 ficedula hy
9	18	28.6	8	8	Q94VC1	Q94vc1 varanus rud
10	18	28.6	8	11	P82598	P82598 rattus norv
11	18	28.6	9	12	Q69473	Q69473 human herpe
12	17	27.0	8	13	P79940	P79940 xenopus lae
13	17	27.0	10	2	Q47561	Q47561 escherichia
14	17	27.0	10	2	Q8KHN9	Q8khn9 clostridium
15	17	27.0	10	10	Q99213	Q99213 aegilops sq
16	17	27.0	10	11	Q9ESU5	Q9esu5 mus musculu
17	16	25.4	7	2	Q8KMS9	Q8kms9 enterobacte
18	16	25.4	10	6	Q9TR48	Q9tr48 bos taurus
19	16	25.4	10	11	Q9QVE6	Q9qve6 mus sp. pro
20	15	23.8	7	11	Q8K3H6	Q8k3h6 rattus norv
21	15	23.8	8	4	Q15888	Q15888 homo sapien
22	15	23.8	8	8	Q94VB2	Q94vb2 varanus sal
23	15	23.8	8	8	Q94VA7	Q94va7 varanus sal
24	15	23.8	8	8	Q94VB5	Q94vb5 varanus sal
25	15	23.8	8	12	Q64971	Q64971 alfalfa mos
26	15	23.8	9	4	Q9BYF9	Q9byf9 homo sapien
27	15	23.8	9	5	Q9TWV0	Q9twv0 anthopleura
28	15	23.8	9	7	Q9MW43	Q9mw43 homo sapien
29	15	23.8	9	8	Q94VC6	Q94vc6 varanus pil
30	15	23.8	9	11	Q62530	Q62530 mus spretus
31	15	23.8	9	12	Q65711	Q65711 berne virus
32	15	23.8	9	13	Q9PRJ4	Q9prj4 lepisosteus
33	15	23.8	10	6	Q9TR47	Q9tr47 bos taurus
34	15	23.8	10	8	Q9XMB4	Q9xmb4 aegilops ta
35	15	23.8	10	8	Q94VD5	Q94vd5 varanus oli
36	15	23.8	10	12	Q69347	Q69347 herpes simp
37	14.5	23.0	8	2	O85406	O85406 coxiella bu
38	14	22.2	8	11	P70243	P70243 mus musculu
39	14	22.2	9	6	Q9XSL0	Q9xsl0 capra hircu
40	14	22.2	10	3	Q8TG88	Q8tg88 pleurotus o
41	14	22.2	10	6	Q9N1X1	Q9n1x1 equus cabal
42	14	22.2	10	12	Q86580	Q86580 simian para
43	14	22.2	10	15	Q86324	Q86324 rous sarcom
44	14	22.2	10	15	Q86325	Q86325 rous sarcom
45	14	22.2	10	15	Q86326	Q86326 rous sarcom

ALIGNMENTS

RESULT 1
Q958J8
ID Q958J8 PRELIMINARY; PRT; 10 AA.
AC Q958J8;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Rana muscosa.
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OX NCBI_TaxID=160500;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=21184280; PubMed=11286498;
RA Macey J.R., Strasburg J.L., Brisson J.A., Vredenburg V.T.,
RA Jennings M., Larson A.;
RT "Molecular Phylogenetics of Western North American Frogs of the Rana
RT boylii Species Group.";
RL Mol. Phylogenet. Evol. 19:131-143(2001).
DR EMBL; AF314026; AAK56898.1; -.
KW Mitochondrion.
FT NON_TER 10 10
SQ SEQUENCE 10 AA; 1335 MW; C0D380C9D371F1A9 CRC64;

Query Match 31.7%; Score 20; DB 8; Length 10;
Best Local Similarity 50.0%; Pred. No. 4.1e+03;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 2 HWSY 5
|| :
Db 5 HWFF 8

RESULT 2
O02831
ID O02831 PRELIMINARY; PRT; 8 AA.

```
AC   O02831;
DT   01-JUL-1997 (TrEMBLrel. 04, Created)
DT   01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Pro alpha 1 type III collagen protein (Fragment).
OS   Oryctolagus cuniculus (Rabbit).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX   NCBI_TaxID=9986;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=96377339; PubMed=8783186;
RA   Metsaranta M., Kujala U.M., Pelliniemi L., Osterman H., Aho H.,
RA   Vuorio E.;
RT   "Evidence for insufficient chondrocytic differentiation during repair
RT   of full-thickness defects of articular cartilage.";
RL   Matrix Biol. 15:39-47(1996).
DR   EMBL; S83371; AAD14433.1; -.
KW   Collagen.
FT   NON_TER       1      1
SQ   SEQUENCE   8 AA;  1028 MW;  B859C7272EA77371 CRC64;

  Query Match             30.2%;  Score 19;  DB 6;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 HW 3
              ||
Db          1 HW 2


RESULT 3
Q94PX5
ID   Q94PX5      PRELIMINARY;      PRT;     8 AA.
AC   Q94PX5;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit II (Fragment).
GN   COII.
OS   Felis silvestris (Wild cat).
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX   NCBI_TaxID=9683;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=66, 71, 75, 90, 1, and 2;
RA   Randi E., Pierpaoli M., Beaumont M., Ragni B., Sforzi A.;
RT   "Genetic identification of wild and domestic cats (Felis silvestris),
RT   and their hybrids using Bayesian clustering methods.";
RL   Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AJ409136; CAC41051.1; -.
DR   EMBL; AJ409137; CAC41054.1; -.
DR   EMBL; AJ409138; CAC41057.1; -.
DR   EMBL; AJ409139; CAC41060.1; -.
DR   EMBL; AJ409141; CAC41066.1; -.
DR   EMBL; AJ409143; CAC41072.1; -.
KW   Mitochondrion.
FT   NON_TER       1      1
SQ   SEQUENCE   8 AA;  951 MW;  262685BDC5A3733B CRC64;

  Query Match             30.2%;  Score 19;  DB 8;  Length 8;
  Best Local Similarity   75.0%;  Pred. No. 8.3e+05;
  Matches    3;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 EHWS 4
              | ||
Db          1 EKWS 4


RESULT 4
Q94PX7
ID   Q94PX7      PRELIMINARY;      PRT;     8 AA.
AC   Q94PX7;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit II (Fragment).
GN   COII.
OS   Felis silvestris catus (Cat).
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX   NCBI_TaxID=9685;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=1, 2, 7, 12, 16, 17, and 110;
RA   Randi E., Pierpaoli M., Beaumont M., Ragni B., Sforzi A.;
RT   "Genetic identification of wild and domestic cats (Felis silvestris),
RT   and their hybrids using Bayesian clustering methods.";
RL   Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AJ409128; CAC41027.1; -.
DR   EMBL; AJ409129; CAC41030.1; -.
DR   EMBL; AJ409130; CAC41033.1; -.
DR   EMBL; AJ409131; CAC41036.1; -.
DR   EMBL; AJ409132; CAC41039.1; -.
DR   EMBL; AJ409133; CAC41042.1; -.
DR   EMBL; AJ409134; CAC41045.1; -.
KW   Mitochondrion.
FT   NON_TER       1      1
SQ   SEQUENCE   8 AA;  951 MW;  262685BDC5A3733B CRC64;

  Query Match             30.2%;  Score 19;  DB 8;  Length 8;
  Best Local Similarity   75.0%;  Pred. No. 8.3e+05;
  Matches    3;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 EHWS 4
              | ||
Db          1 EKWS 4


RESULT 5
Q94PX6
ID   Q94PX6      PRELIMINARY;      PRT;     8 AA.
AC   Q94PX6;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit II (Fragment).
GN   COII.
OS   Felis libyca.
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX   NCBI_TaxID=61377;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=40, 1, 2, and 7;
RA   Randi E., Pierpaoli M., Beaumont M., Ragni B., Sforzi A.;
RT   "Genetic identification of wild and domestic cats (Felis silvestris),
RT   and their hybrids using Bayesian clustering methods.";
RL   Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AJ409135; CAC41048.1; -.
DR   EMBL; AJ409140; CAC41063.1; -.
DR   EMBL; AJ409142; CAC41069.1; -.
DR   EMBL; AJ409144; CAC41075.1; -.
KW   Mitochondrion.
FT   NON_TER       1      1
SQ   SEQUENCE   8 AA;  951 MW;  262685BDC5A3733B CRC64;

  Query Match             30.2%;  Score 19;  DB 8;  Length 8;
  Best Local Similarity   75.0%;  Pred. No. 8.3e+05;
  Matches    3;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 EHWS 4
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              | ||
Db          1 EKWS 4


RESULT 6
Q8W8X4
ID   Q8W8X4      PRELIMINARY;      PRT;     9 AA.
AC   Q8W8X4;
DT   01-MAR-2002 (TrEMBLrel. 20, Created)
DT   01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT   01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DE   Cytochrome oxidase subunit II (Fragment).
GN   COII.
OS   Diadema mexicanum.
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Echinozoa;
OC   Echinoidea; Euechinoidea; Diadematacea; Diadematoida; Diadematidae;
OC   Diadema.
OX   NCBI_TaxID=105359;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=CC70, and CC117;
RX   MEDLINE=21323357; PubMed=11430656;
RA   Lessios H.A., Kessing B.D., Pearse J.S.;
RT   "Population structure and speciation in tropical seas: global
RT   phylogeography of the sea urchin Diadema.";
RL   Evolution 55:955-975(2001).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=CC70, and CC117;
RX   MEDLINE=21561594; PubMed=11703875;
RA   Lessios H.A., Garrido M.J., Kessing B.D.;
RT   "Demographic history of Diadema antillarum, a keystone herbivore on
RT   Caribbean reefs.";
RL   Proc. R. Soc. Lond., B, Biol. Sci. 268:2347-2353(2001).
DR   EMBL; AY012920; AAL33843.1; -.
DR   EMBL; AY012921; AAL33844.1; -.
KW   Mitochondrion.
FT   NON_TER       1      1
SQ   SEQUENCE   9 AA;  1174 MW;  2B73173B46DDC2D3 CRC64;

  Query Match             30.2%;  Score 19;  DB 8;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 HW 3
              ||
Db          1 HW 2


RESULT 7
Q8JFE7
ID   Q8JFE7      PRELIMINARY;      PRT;    10 AA.
AC   Q8JFE7;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DE   Myelin proteolipid protein (Fragment).
OS   Ficedula albicollis.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Archosauria; Aves; Neognathae; Passeriformes; Muscicapidae; Ficedula.
OX   NCBI_TaxID=59894;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Bc5, and Bc8;
RX   MEDLINE=21918460; PubMed=11918793;
RA   Primmer C.R., Borge T., Lindell J., Saetre G.-P.;
RT   "Single-nucleotide polymorphism characterization in species with
RT   limited available sequence information: high nucleotide diversity
RT   revealed in the avian genome.";
RL   Mol. Ecol. 11:603-612(2002).
DR   EMBL; AF454217; AAM22903.1; -.
DR   EMBL; AF454218; AAM22904.1; -.
FT   NON_TER       1      1
FT   NON_TER      10     10
SQ   SEQUENCE   10 AA;  1206 MW;  1FAAC9676732C86B CRC64;

  Query Match             30.2%;  Score 19;  DB 13;  Length 10;
  Best Local Similarity   60.0%;  Pred. No. 6.1e+03;
  Matches    3;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          5 YGLRP 9
              ||: |
Db          3 YGVLP 7


RESULT 8
Q8JJ33
ID   Q8JJ33      PRELIMINARY;      PRT;    10 AA.
AC   Q8JJ33;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DE   Myelin proteolipid protein (Fragment).
OS   Ficedula hypoleuca.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Archosauria; Aves; Neognathae; Passeriformes; Muscicapidae; Ficedula.
OX   NCBI_TaxID=46689;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Op86;
RX   MEDLINE=21918460; PubMed=11918793;
RA   Primmer C.R., Borge T., Lindell J., Saetre G.-P.;
RT   "Single-nucleotide polymorphism characterization in species with
RT   limited available sequence information: high nucleotide diversity
RT   revealed in the avian genome.";
RL   Mol. Ecol. 11:603-612(2002).
DR   EMBL; AF454216; AAM22902.1; -.
FT   NON_TER       1      1
FT   NON_TER      10     10
SQ   SEQUENCE   10 AA;  1206 MW;  1FAAC9676732C86B CRC64;

  Query Match             30.2%;  Score 19;  DB 13;  Length 10;
  Best Local Similarity   60.0%;  Pred. No. 6.1e+03;
  Matches    3;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          5 YGLRP 9
              ||: |
Db          3 YGVLP 7


RESULT 9
Q94VC1
ID   Q94VC1      PRELIMINARY;      PRT;     8 AA.
AC   Q94VC1;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit I (Fragment).
GN   COI.
OS   Varanus rudicollis.
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX   NCBI_TaxID=169851;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Ast J.C.;
RT   "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL   Cladistics 17:0-0(2001).
DR   EMBL; AF407521; AAL10116.1; -.
KW   Mitochondrion.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  1053 MW;  FE2729D5A36411A6 CRC64;

  Query Match             28.6%;  Score 18;  DB 8;  Length 8;
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  Best Local Similarity   66.7%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 WSY 5
              ||:
Db          4 WSF 6


RESULT 10
P82598
ID   P82598      PRELIMINARY;      PRT;     8 AA.
AC   P82598;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT   01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
DE   38kDa non-arginase growth inhibitory factor (NAGIF)(Fragment).
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE.
RC   STRAIN=Sprague-Dawley; TISSUE=Liver;
RX   MEDLINE=20198203; PubMed=10731662;
RA   Kim K.-Y., Choi I., Kim S.-S.;
RT   "Purification and characterization of a novel inhibitor of the
RT   proliferation of hepatic stellate cells.";
RL   J. Biochem. 127:23-27(2000).
CC   -!- FUNCTION: MAY ACT AS A NEGATIVE EFFECTOR IN THE REGULATION OF THE
CC       HEPATIC STELLATE CELLS (HSC). ALSO INHIBITS THE GROWTH OF BOVINE
CC       ENDOTHELIAL CELLS AND 3T6 FIBROBLASTS.
CC   -!- SIMILARITY: IDENTICAL TO THE 63-70 AA REGION OF THE RAT ZAG
CC       PROTEIN.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  914 MW;  80A3676B02D76B1D CRC64;

  Query Match             28.6%;  Score 18;  DB 11;  Length 8;
  Best Local Similarity   75.0%;  Pred. No. 8.3e+05;
  Matches    3;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 EHWS 4
              | ||
Db          5 EPWS 8


RESULT 11
Q69473
ID   Q69473      PRELIMINARY;      PRT;     9 AA.
AC   Q69473;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DE   Immediate-early transactivator 110 (Fragment).
GN   ICP0.
OS   Human herpesvirus 1.
OC   Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
OC   Alphaherpesvirinae; Simplexvirus.
OX   NCBI_TaxID=10298;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=MP;
RX   PubMed=11725047;
RA   Chang Y., Jeang K., Lietman T., Hayward G.S.;
RT   "Structural Organization of the Spliced Immediate-Early Gene Complex
RT   that Encodes the Major Acidic Nuclear (IE1) and Transactivator (IE2)
RT   Proteins of African Green Monkey Cytomegalovirus.";
RL   J. Biomed. Sci. 2:105-130(1995).
DR   EMBL; U18080; AAA75442.1; -.
FT   NON_TER       1      1
FT   NON_TER       9      9
SQ   SEQUENCE   9 AA;  1029 MW;  797BB867740DDB04 CRC64;

  Query Match             28.6%;  Score 18;  DB 12;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 RPG 10
              |||
Db          5 RPG 7


RESULT 12
P79940
ID   P79940      PRELIMINARY;      PRT;     8 AA.
AC   P79940;
DT   01-MAY-1997 (TrEMBLrel. 03, Created)
DT   01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   XMeis1-4 protein (Fragment).
OS   Xenopus laevis (African clawed frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
OC   Xenopodinae; Xenopus.
OX   NCBI_TaxID=8355;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=97202105; PubMed=9049632;
RA   Steelman S., Moskow J.J., Muzynski K., North C., Druck T.,
RA   Montgomery J.C., Huebner K., Daar I.O., Buchberg A.M.;
RT   "Identification of a conserved family of Meis1-related homeobox
RT   genes.";
RL   Genome Res. 7:142-156(1997).
DR   EMBL; U68389; AAB19199.1; -.
DR   TRANSFAC; T03410; -.
FT   NON_TER       1      1
SQ   SEQUENCE   8 AA;  1187 MW;  278B51F37B11F40B CRC64;

  Query Match             27.0%;  Score 17;  DB 13;  Length 8;
  Best Local Similarity   66.7%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          3 WSY 5
              | |
Db          5 WHY 7


RESULT 13
Q47561
ID   Q47561      PRELIMINARY;      PRT;    10 AA.
AC   Q47561;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-JAN-1999 (TrEMBLrel. 09, Last annotation update)
DE   Hypothetical 1.1 kDa protein (Fragment).
OS   Escherichia coli.
OC   Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC   Enterobacteriaceae; Escherichia.
OX   NCBI_TaxID=562;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=K-12;
RX   MEDLINE=94162733; PubMed=7764507;
RA   Yamada M., Yanai S., Talkuder A.;
RT   "Analysis of products of the Escherichia coli genomic genes and
RT   regulation of their expressions: an applicable procedure for genomic
RT   analysis of other microorganisms.";
RL   Biosci. Biotechnol. Biochem. 58:117-120(1994).
DR   EMBL; D21143; BAA04679.1; -.
KW   Hypothetical protein.
FT   NON_TER       1      1
FT   NON_TER      10     10
SQ   SEQUENCE   10 AA;  1109 MW;  2D1B58B1E87DD733 CRC64;

  Query Match             27.0%;  Score 17;  DB 2;  Length 10;
  Best Local Similarity   37.5%;  Pred. No. 1.4e+04;
  Matches    3;  Conservative    1;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy          2 HWSYGLRP 9
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Db          2 NWLAGHSP 9


RESULT 14
Q8KHN9
ID   Q8KHN9      PRELIMINARY;      PRT;    10 AA.
AC   Q8KHN9;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DE   BoNT/A (Fragment).
GN   BONT/A.
OS   Clostridium botulinum.
OC   Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae;
OC   Clostridium.
OX   NCBI_TaxID=1491;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=62A, and NCTC 2916;
RA   Dineen S.S., Bradshaw M., Johnson E.A.;
RT   "Comparison of the neurotoxin gene clusters in Clostridium botulinum
RT   type A strains.";
RL   Submitted (DEC-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF461539; AAM75954.1; -.
DR   EMBL; AF461541; AAM75962.1; -.
FT   NON_TER       1      1
SQ   SEQUENCE   10 AA;  1143 MW;  8721FA0B1863787A CRC64;

  Query Match             27.0%;  Score 17;  DB 2;  Length 10;
  Best Local Similarity   60.0%;  Pred. No. 1.4e+04;
  Matches    3;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          5 YGLRP 9
              :| ||
Db          5 WGERP 9


RESULT 15
Q99213
ID   Q99213      PRELIMINARY;      PRT;    10 AA.
AC   Q99213;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
DE   Albumin (Fragment).
OS   Aegilops squarrosa.
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
OC   Triticeae; Aegilops.
OX   NCBI_TaxID=37682;
RN   [1]
RP   SEQUENCE.
RA   Shewry P.R., Lafiandra D., Salcedo G., Aragoncillo C.,
RA   Garcia-Olmedo F., Lew E.J.-L., Dietler M.D., Kasarda D.D.;
RL   FEBS Lett. 175:359-363(1984).
KW   Seed storage protein.
FT   NON_TER      10     10
SQ   SEQUENCE   10 AA;  1105 MW;  3A1AB5AEA365A367 CRC64;

  Query Match             27.0%;  Score 17;  DB 10;  Length 10;
  Best Local Similarity   66.7%;  Pred. No. 1.4e+04;
  Matches    2;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 WSY 5
              ||:
Db          4 WSW 6


Search completed: November 17, 2003, 18:23:05
Job time : 35 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:19:28 ; Search time 21 Seconds
(without alignments)
20.148 Million cell updates/sec

Title: US-09-462-089-1
Perfect score: 63
Sequence: 1 EHWSYGLRPG 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 90058

Minimum DB seq length: 0
Maximum DB seq length: 10

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
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2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	63	100.0	10	1	US-07-714-540-9	Sequence 9, Appli
2	63	100.0	10	1	US-07-690-983D-2	Sequence 2, Appli
3	63	100.0	10	1	US-07-690-983D-32	Sequence 32, Appl
4	63	100.0	10	1	US-08-343-883-1	Sequence 1, Appli
5	63	100.0	10	1	US-08-000-931-5	Sequence 5, Appli
6	63	100.0	10	1	US-08-428-488-22	Sequence 22, Appl
7	63	100.0	10	1	US-08-341-219-11	Sequence 11, Appl
8	63	100.0	10	1	US-08-453-588-22	Sequence 22, Appl
9	63	100.0	10	1	US-08-591-917-1	Sequence 1, Appli
10	63	100.0	10	1	US-08-446-692-1	Sequence 1, Appli
11	63	100.0	10	2	US-08-796-598-6	Sequence 6, Appli
12	63	100.0	10	2	US-08-694-865-18	Sequence 18, Appl
13	63	100.0	10	2	US-08-488-351A-1	Sequence 1, Appli
14	63	100.0	10	2	US-08-480-494B-1	Sequence 1, Appli
15	63	100.0	10	2	US-08-447-175A-6	Sequence 6, Appli
16	63	100.0	10	3	US-08-521-079-22	Sequence 22, Appl
17	63	100.0	10	3	US-09-124-491-18	Sequence 18, Appl
18	63	100.0	10	3	US-09-100-414B-77	Sequence 77, Appl
19	63	100.0	10	3	US-08-927-128-13	Sequence 13, Appl
20	63	100.0	10	3	US-08-912-314A-11	Sequence 11, Appl
21	63	100.0	10	3	US-09-303-323-77	Sequence 77, Appl
22	63	100.0	10	3	US-09-373-180-1	Sequence 1, Appli
23	63	100.0	10	4	US-09-026-276-28	Sequence 28, Appl
24	63	100.0	10	4	US-09-451-013-1	Sequence 1, Appli
25	63	100.0	10	4	US-08-973-378-1	Sequence 1, Appli
26	63	100.0	10	4	US-09-698-134-1	Sequence 1, Appli
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28	63	100.0	10	4	US-09-639-483C-3	Sequence 3, Appli
29	63	100.0	10	4	US-09-383-912-18	Sequence 18, Appl
30	63	100.0	10	4	US-09-770-014-77	Sequence 77, Appl
31	63	100.0	10	6	5168061-1	Patent No. 5168061
32	63	100.0	10	6	5169865-10	Patent No. 5169865
33	63	100.0	10	6	5169935-1	Patent No. 5169935
34	63	100.0	10	6	5488036-1	Patent No. 5488036
35	63	100.0	10	6	5492893-1	Patent No. 5492893
36	60	95.2	10	1	US-08-453-588-2	Sequence 2, Appli
37	60	95.2	10	1	US-08-453-588-4	Sequence 4, Appli
38	60	95.2	10	1	US-08-453-588-6	Sequence 6, Appli
39	60	95.2	10	1	US-08-453-588-8	Sequence 8, Appli
40	60	95.2	10	1	US-08-453-588-10	Sequence 10, Appl
41	60	95.2	10	1	US-08-453-588-12	Sequence 12, Appl
42	60	95.2	10	1	US-08-453-588-14	Sequence 14, Appl
43	60	95.2	10	1	US-08-453-588-16	Sequence 16, Appl
44	60	95.2	10	1	US-08-453-588-19	Sequence 19, Appl
45	60	95.2	10	1	US-08-387-156-2	Sequence 2, Appli

ALIGNMENTS

```
RESULT 1
US-07-714-540-9
; Sequence 9, Application US/07714540
; Patent No. 5262521
; GENERAL INFORMATION:
;   APPLICANT: Almquist, Ronald G.
;   APPLICANT: Toll, Lawrence
;   TITLE OF INVENTION: ISOLATED ATRIAL PEPTIDE-DEGRADING
;   TITLE OF INVENTION: ENZYME AND NOVEL COMPOUNDS USEFUL AS INHIBITORS THEREOF
;   NUMBER OF SEQUENCES: 13
;   CORRESPONDENCE ADDRESS:
;     ADDRESSEE: Irell & Manella
;     STREET: 545 Middlefield Road, Suite 200
;     CITY: Menlo Park
;     STATE: California
;     COUNTRY: USA
;     ZIP: 94025
;   COMPUTER READABLE FORM:
;     MEDIUM TYPE: Floppy disk
;     COMPUTER: IBM PC compatible
;     OPERATING SYSTEM: PC-DOS/MS-DOS
;     SOFTWARE: PatentIn Release #1.0, Version #1.25
;   CURRENT APPLICATION DATA:
;     APPLICATION NUMBER: US/07/714,540
;     FILING DATE: 19910607
;     CLASSIFICATION: 530
;   ATTORNEY/AGENT INFORMATION:
;     NAME: Reed, Dianne E.
;     REGISTRATION NUMBER: 31,292
;     REFERENCE/DOCKET NUMBER: 8500-0135.00
;   TELECOMMUNICATION INFORMATION:
;     TELEPHONE: 415-327-7250
;     TELEFAX: 415-327-2951
;     TELEX: 706141
; INFORMATION FOR SEQ ID NO: 9:
;   SEQUENCE CHARACTERISTICS:
;     LENGTH: 10 amino acids
;     TYPE: AMINO ACID
;     STRANDEDNESS: single
;     TOPOLOGY: linear
;   MOLECULE TYPE: protein
US-07-714-540-9

  Query Match          100.0%;  Score 63;  DB 1;  Length 10;
  Best Local Similarity  100.0%;  Pred. No. 0.00011;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
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Db          1 EHWSYGLRPG 10
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RESULT 2
US-07-690-983D-2
; Sequence 2, Application US/07690983D
; Patent No. 5403586
;  GENERAL INFORMATION:
;    APPLICANT:  RUSSELL-JONES, Gregory J.
;    APPLICANT:  STEWART, Andrew G.
;    APPLICANT:  TSONIS, Con G.
;    TITLE OF INVENTION:  FUSION PROTEINS
;    NUMBER OF SEQUENCES:  47
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Foley & Lardner
;      STREET:  3000 K Street, N.W.
;      CITY:  Washington, D.C.
;      COUNTRY:  USA
;      ZIP:  20007-5109
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/690,983D
;      FILING DATE:  25-JUN-1991
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/AU90/00373
;      FILING DATE:  24-AUG-1990
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  BENT, Stephen A.
;      REGISTRATION NUMBER:  29,768
;      REFERENCE/DOCKET NUMBER:  16786/148 CHAC
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202)672-5300
;      TELEFAX:  (202)672-5399
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  10 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  unknown
;    MOLECULE TYPE:  protein
US-07-690-983D-2

  Query Match             100.0%;  Score 63;  DB 1;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00011;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 3
US-07-690-983D-32
; Sequence 32, Application US/07690983D
; Patent No. 5403586
;  GENERAL INFORMATION:
;    APPLICANT:  RUSSELL-JONES, Gregory J.
;    APPLICANT:  STEWART, Andrew G.
;    APPLICANT:  TSONIS, Con G.
;    TITLE OF INVENTION:  FUSION PROTEINS
;    NUMBER OF SEQUENCES:  47
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Foley & Lardner
;      STREET:  3000 K Street, N.W.
;      CITY:  Washington, D.C.
;      COUNTRY:  USA
;      ZIP:  20007-5109
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/690,983D
;      FILING DATE:  25-JUN-1991
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/AU90/00373
;      FILING DATE:  24-AUG-1990
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  BENT, Stephen A.
;      REGISTRATION NUMBER:  29,768
;      REFERENCE/DOCKET NUMBER:  16786/148 CHAC
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202)672-5300
;      TELEFAX:  (202)672-5399
;  INFORMATION FOR SEQ ID NO:  32:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  10 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-07-690-983D-32

  Query Match             100.0%;  Score 63;  DB 1;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00011;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
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Db          1 EHWSYGLRPG 10


RESULT 4
US-08-343-883-1
; Sequence 1, Application US/08343883
; Patent No. 5573767
;  GENERAL INFORMATION:
;    APPLICANT:  Dufour, Raymond J.
;    APPLICANT:  Roulet, Claude J.M.
;    APPLICANT:  Chouvet, Claire D.
;    APPLICANT:  Bonneau, Michel B.
;    TITLE OF INVENTION:  Method for improving the organoleptic
;    TITLE OF INVENTION:  qualities of the meat from uncastrated male domestic
;    TITLE OF INVENTION:  animals, vaccines which are usable in this method, new
;    TITLE OF INVENTION:  peptide, in particular for producing these vaccines...
;    NUMBER OF SEQUENCES:  2
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Larson and Taylor
;      STREET:  727 Twenty-Third Street, South
;      CITY:  Arlington
;      STATE:  Virginia
;      COUNTRY:  USA
;      ZIP:  22202
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/343,883
;      FILING DATE:  17-NOV-1994
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/946,495
;      FILING DATE:  09-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  FR 9102513
;      FILING DATE:  01-MAR-1991
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  FR 9115289
;      FILING DATE:  10-DEC-1991
;  INFORMATION FOR SEQ ID NO:  1:
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;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  10 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    FEATURE:
;      NAME/KEY:  Peptide
;      LOCATION:  10
;      OTHER INFORMATION:  /label= NH2
;      OTHER INFORMATION:  /note= "amidated glycine"
;    FEATURE:
;      NAME/KEY:  Peptide
;      LOCATION:  1
;      OTHER INFORMATION:  /label= pyro
;      OTHER INFORMATION:  /note= "pyroglutamic acid"
;    PUBLICATION INFORMATION:
;      AUTHORS:  Matsuo, H.
;      AUTHORS:  Baba, Y.
;      AUTHORS:  G. Nair, R. M.
;      AUTHORS:  Arimura, A.
;      AUTHORS:  Schally, A. V.
;      TITLE:  Structure of the porcine LH- and
;      TITLE:  FSH-releasing hormone. I. The proposed amino acid
;      TITLE:  sequence.
;      JOURNAL:  Biochem. Biophys. Res. Commun.
;      VOLUME:  43
;      ISSUE:  6
;      PAGES:  1334-1339
;      DATE:  1971
;      RELEVANT RESIDUES IN SEQ ID NO:  1: FROM 1 TO 10
US-08-343-883-1

  Query Match             100.0%;  Score 63;  DB 1;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00011;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
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Db          1 EHWSYGLRPG 10


RESULT 5
US-08-000-931-5
; Sequence 5, Application US/08000931
; Patent No. 5578477
;  GENERAL INFORMATION:
;    APPLICANT:  Tamanoi Dr., Fuyuhiko
;    TITLE OF INVENTION:  IDENTIFICATION AND CHARACTERIZATION OF
;    TITLE OF INVENTION:  INHIBITORS OF PROTEIN FARNESYLTRANSFERASE
;    NUMBER OF SEQUENCES:  10
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Foley & Lardner
;      STREET:  3000 K Street, N.W., Suite 500
;      CITY:  Washington, D.C.
;      COUNTRY:  USA
;      ZIP:  20007-5109
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/000,931
;      FILING DATE:  05-JAN-1994
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  BENT, Stephen A.
;      REGISTRATION NUMBER:  29,768
;      REFERENCE/DOCKET NUMBER:  64098/102/ARDE
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202)672-5300
;      TELEFAX:  (202)672-5399
;      TELEX:  904136
;  INFORMATION FOR SEQ ID NO:  5:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  10 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-000-931-5

  Query Match             100.0%;  Score 63;  DB 1;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00011;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 6
US-08-428-488-22
; Sequence 22, Application US/08428488
; Patent No. 5624894
;  GENERAL INFORMATION:
;    APPLICANT:  BODOR, Nicholas S.
;    TITLE OF INVENTION:  BRAIN-ENHANCED DELIVERY OF NEUROACTIVE
;    TITLE OF INVENTION:  PEPTIDES BY SEQUENTIAL METABOLISM
;    NUMBER OF SEQUENCES:  107
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Burns, Doane, Swecker & Mathis
;      STREET:  P.O. Box 1404
;      CITY:  Alexandria
;      STATE:  Virginia
;      COUNTRY:  United States
;      ZIP:  22313-1404
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/428,488
;      FILING DATE:  27-APR-1995
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Baumeister, Mary Katherine
;      REGISTRATION NUMBER:  26,254
;      REFERENCE/DOCKET NUMBER:  028724-087
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (703) 836-6620
;      TELEFAX:  (703) 836-2021
;  INFORMATION FOR SEQ ID NO:  22:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  10 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    FEATURE:
;      NAME/KEY:  Modified-site
;      LOCATION:  1
;      OTHER INFORMATION:  /note= "Position 1 = p-Glu."
;    FEATURE:
;      NAME/KEY:  Modified-site
;      LOCATION:  10
;      OTHER INFORMATION:  /note= "Position 10 = Gly-NH2."
US-08-428-488-22

  Query Match             100.0%;  Score 63;  DB 1;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00011;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
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Db          1 EHWSYGLRPG 10


RESULT 7
US-08-341-219-11
; Sequence 11, Application US/08341219
; Patent No. 5643877
;  GENERAL INFORMATION:
;    APPLICANT:  Zohar, Y.
;    APPLICANT:  Rivier, J.
;    APPLICANT:  Powell, J.
;    APPLICANT:  Sherwood, N.
;    APPLICANT:  Gothilf, Y.
;    TITLE OF INVENTION:  Compounds and Methods For Controlling
;    TITLE OF INVENTION:  Reproduction in Fish
;    NUMBER OF SEQUENCES:  26
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Pennie & Edmonds
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  N.Y.
;      COUNTRY:  USA
;      ZIP:  10036-2711
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/341,219
;      FILING DATE:  05-DEC-1994
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Coruzzi,, Laura A.
;      REGISTRATION NUMBER:  30742
;      REFERENCE/DOCKET NUMBER:  8399-003-999
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-8864/9741
;  INFORMATION FOR SEQ ID NO:  11:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  10 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  not relevant
;      TOPOLOGY:  unknown
;    MOLECULE TYPE:  peptide
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
;    FEATURE:
;      NAME/KEY:  Modified-site
;      LOCATION:  1
;      OTHER INFORMATION:  /product= "OTHER"
;      OTHER INFORMATION:  /label= Glu1
;      OTHER INFORMATION:  /note= "=pyroglutamic acid"
;    FEATURE:
;      NAME/KEY:  Modified-site
;      LOCATION:  10
;      OTHER INFORMATION:  /product= "OTHER"
;      OTHER INFORMATION:  /label= Gly10
;      OTHER INFORMATION:  /note= "amidated"
US-08-341-219-11

  Query Match             100.0%;  Score 63;  DB 1;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00011;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 8
US-08-453-588-22
; Sequence 22, Application US/08453588
; Patent No. 5684145
;  GENERAL INFORMATION:
;    APPLICANT:  Anna van der Zee, Irma Marianne van Die,
;    APPLICANT:  Willem Pieter Martin Hoekstra,
;    APPLICANT:  Josephus Theodorus Gielen.
;    TITLE OF INVENTION:  Carrier system against GnRH
;    NUMBER OF SEQUENCES:  30
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Akzo No. 5684145el Patent Department
;      STREET:  1300 Piccard Drive, Suite 206
;      CITY:  Rockville
;      STATE:  Maryland
;      COUNTRY:  U.S.A.
;      ZIP:  20850
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/453,588
;      FILING DATE:  30-MAY-1995
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/078,661
;      FILING DATE:  16-JUN-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Mary E. Gormley
;      REGISTRATION NUMBER:  34,409
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (301) 258-5200
;  INFORMATION FOR SEQ ID NO:  22:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  10 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
;    FEATURE:
;      NAME/KEY:  Glu at position 1 is pyroglutamic acid
US-08-453-588-22

  Query Match             100.0%;  Score 63;  DB 1;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00011;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
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Db          1 EHWSYGLRPG 10


RESULT 9
US-08-591-917-1
; Sequence 1, Application US/08591917
; Patent No. 5707964
;  GENERAL INFORMATION:
;    APPLICANT:  Nett, Torrance M
;    APPLICANT:  Glode, Leonard Michael
;    TITLE OF INVENTION:  A METHOD FOR TREATING CANCER
;    NUMBER OF SEQUENCES:  3
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Sheridan Ross & McIntosh
;      STREET:  1700 Lincoln Street, Suite 3500
;      CITY:  Denver
;      STATE:  Colorado
;      COUNTRY:  USA
;      ZIP:  80203
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
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;      APPLICATION NUMBER:  US/08/591,917
;      FILING DATE:  26-JAN-1996
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Kovarik, Joseph E.
;      REGISTRATION NUMBER:  33,005
;      REFERENCE/DOCKET NUMBER:  2730-3-2-1-1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (303) 863-9700
;      TELEFAX:  (303) 863-0223
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  10 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-591-917-1

  Query Match             100.0%;  Score 63;  DB 1;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00011;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 10
US-08-446-692-1
; Sequence 1, Application US/08446692
; Patent No. 5759551
;  GENERAL INFORMATION:
;    APPLICANT:  Ladd, Anna
;    APPLICANT:  Wang, Chang Yi
;    APPLICANT:  Zamb, Timothy
;    TITLE OF INVENTION:  Immunogenic LHRH peptide constructs
;    TITLE OF INVENTION:  and synthetic universal immune stimulators for vaccines
;    NUMBER OF SEQUENCES:  114
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Maria C.H. Lin
;      STREET:  345 Park Avenue
;      CITY:  New York
;      STATE:  NY
;      COUNTRY:  US
;      ZIP:  10154-0053
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/446,692
;      FILING DATE:  7-JUN-1995
;      CLASSIFICATION:  424
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Maria C.H. Lin
;      REGISTRATION NUMBER:  29,323
;      REFERENCE/DOCKET NUMBER:  1151-4146 US2
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212)415-8745
;      TELEFAX:  (516)751-6849
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  10 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-446-692-1

  Query Match             100.0%;  Score 63;  DB 1;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00011;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
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Db          1 EHWSYGLRPG 10


RESULT 11
US-08-796-598-6
; Sequence 6, Application US/08796598
; Patent No. 5827659
;  GENERAL INFORMATION:
;    APPLICANT:  PATTERSON, DALE H.
;    APPLICANT:  TARR, GEORGE E.
;    TITLE OF INVENTION:  METHODS AND APPARATUS FOR SEQUENCING
;    TITLE OF INVENTION:  POLYMERS USING MASS SPECTROMETRY.
;    NUMBER OF SEQUENCES:  23
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Patent Administrator - Testa, Hurwitz &
;      ADDRESSEE:  Thibeault
;      STREET:  High Street Tower, 125 High Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  USA
;      ZIP:  02110
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/796,598
;      FILING DATE:  07-FEB-1997
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/446,055
;      FILING DATE:  19-MAY-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  FLYNN Esq., Kerry A.
;      REGISTRATION NUMBER:  33,693
;      REFERENCE/DOCKET NUMBER:  SYP-115
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617) 248-7000
;      TELEFAX:  (617) 248-7100
;  INFORMATION FOR SEQ ID NO:  6:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  10 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-796-598-6

  Query Match             100.0%;  Score 63;  DB 2;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00011;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 12
US-08-694-865-18
; Sequence 18, Application US/08694865
; Patent No. 5837268
;  GENERAL INFORMATION:
;    APPLICANT:  POTTER, ANDREW A.
;    APPLICANT:  MANNS, JOHN G.
;    TITLE OF INVENTION:  GnRH-LEUKOTOXIN CHIMERAS
;    NUMBER OF SEQUENCES:  34
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  REED & ROBINS LLP
;      STREET:  285 HAMILTON AVENUE, SUITE 200
;      CITY:  PALO ALTO
```

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;       STATE:  CA
;       COUNTRY:  USA
;       ZIP:  94301
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.30
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/694,865
;       FILING DATE:  09-AUG-1996
;       CLASSIFICATION:  424
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  MCCRACKEN, THOMAS P.
;       REGISTRATION NUMBER:  38,548
;       REFERENCE/DOCKET NUMBER:  9001-0016.22
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (415)327-3400
;       TELEFAX:  (415)327-3231
;   INFORMATION FOR SEQ ID NO:  18:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  10 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  protein
;     FEATURE:
;       NAME/KEY:  Modified-site
;       LOCATION:  1
;       OTHER INFORMATION:  /note= "This position is pyroGlu."
US-08-694-865-18

  Query Match             100.0%;  Score 63;  DB 2;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00011;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 13
US-08-488-351A-1
; Sequence 1, Application US/08488351A
; Patent No. 5843446
;  GENERAL INFORMATION:
;    APPLICANT:  Ladd, Anna
;    APPLICANT:  Wang, Chang Yi
;    APPLICANT:  Zamb, Timothy
;    TITLE OF INVENTION:  Immunogenic LHRH peptide constructs
;    TITLE OF INVENTION:  and synthetic universal immune stimulators for vaccines
;    NUMBER OF SEQUENCES:  114
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Maria C.H. Lin
;      STREET:  345 Park Avenue
;      CITY:  New York
;      STATE:  NY
;      COUNTRY:  US
;      ZIP:  10154-0053
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/488,351A
;      FILING DATE:  7-JUN-1995
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/446,692
;      FILING DATE:  7-JUN-1995
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/229,275
;      FILING DATE:  14-APR-1994
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/057,166
;      FILING DATE:  27-APR-1992
;      CLASSIFICATION:  424
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Maria C.H. Lin
;      REGISTRATION NUMBER:  29,323
;      REFERENCE/DOCKET NUMBER:  1151-4146 US2
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212)415-8745
;      TELEFAX:  (516)751-6849
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  10 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-488-351A-1

  Query Match             100.0%;  Score 63;  DB 2;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00011;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 14
US-08-480-494B-1
; Sequence 1, Application US/08480494B
; Patent No. 5843901
;  GENERAL INFORMATION:
;    APPLICANT:  Roeske, Roger W.
;    TITLE OF INVENTION:  LHRH Antagonist Peptides
;    NUMBER OF SEQUENCES:  6
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  LAHIVE & COCKFIELD
;      STREET:  60 State Street, Suite 510
;      CITY:  Boston
;      STATE:  Massachusetts
;      COUNTRY:  USA
;      ZIP:  02109-1875
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/480,494B
;      FILING DATE:  07-JUN-1995
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  DeConti, Giulio A.
;      REGISTRATION NUMBER:  31,503
;      REFERENCE/DOCKET NUMBER:  PPI-007
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617)227-7400
;      TELEFAX:  (617)227-5941
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  10 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-480-494B-1

  Query Match             100.0%;  Score 63;  DB 2;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00011;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
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Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 15
US-08-447-175A-6
; Sequence 6, Application US/08447175A
; Patent No. 5869240
;  GENERAL INFORMATION:
;    APPLICANT:  PATTERSON, DALE H.
;    TITLE OF INVENTION:  METHODS AND APPARATUS FOR SEQUENCING
;    TITLE OF INVENTION:  POLYMERS WITH A STATISTICAL CERTAINTY USING MASS
;    TITLE OF INVENTION:  SPECTROMETRY.
;    NUMBER OF SEQUENCES:  23
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Patent Administrator - Testa, Hurwitz &
;      ADDRESSEE:  Thibeault, LLP
;      STREET:  High Street Tower, 125 High Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  USA
;      ZIP:  02110
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/447,175A
;      FILING DATE:  19-MAY-1995
;      CLASSIFICATION:  422
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  RAUSCHENBACH, Kurt
;      REGISTRATION NUMBER:  40,137
;      REFERENCE/DOCKET NUMBER:  SYP-114
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617) 248-7000
;      TELEFAX:  (617) 248-7100
;  INFORMATION FOR SEQ ID NO:  6:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  10 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-447-175A-6

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  Best Local Similarity   100.0%;  Pred. No. 0.00011;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


Search completed: November 17, 2003, 18:23:37
Job time : 21 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:06:32 ; Search time 41 Seconds
(without alignments)
38.714 Million cell updates/sec

Title: US-09-462-089-1
Perfect score: 63
Sequence: 1 EHWSYGLRPG 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 251420

Minimum DB seq length: 0
Maximum DB seq length: 10

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	63	100.0	10	2	AAP10411	Luteinising Hormon
2	63	100.0	10	2	AAP10416	Luteinising Hormon
3	63	100.0	10	6	AAP50222	Gonadotrophin rele
4	63	100.0	10	7	AAP60127	Gonadoliberin anta
5	63	100.0	10	7	AAP61403	Gonadotropin relea
6	63	100.0	10	7	AAP60576	Novel decapeptide
7	63	100.0	10	8	AAP70922	Luteinising hormon
8	63	100.0	10	10	AAP90630	Sequence of lutein
9	63	100.0	10	12	AAR15713	Peptide #1 with ho
10	63	100.0	10	13	AAR26819	LH releasing hormo
11	63	100.0	10	15	AAR62689	LHRH hapten for at
12	63	100.0	10	16	AAR91197	LHRH peptide. Syn
13	63	100.0	10	16	AAR86845	Gonadotropin relea
14	63	100.0	10	16	AAR75152	Gonadotropin relea
15	63	100.0	10	17	AAW65201	Luteinising hormon
16	63	100.0	10	17	AAW65203	Luteinising hormon
17	63	100.0	10	18	AAW45642	Luteinising hormon
18	63	100.0	10	18	AAW04612	Lutenizing hormone
19	63	100.0	10	19	AAW76373	Rat GnHR peptide.
20	63	100.0	10	20	AAY50229	Neutrophil-activat
21	63	100.0	10	20	AAY31176	Ubiquitin fusion p
22	63	100.0	10	20	AAY31067	Non-crosslinked pr
23	63	100.0	10	20	AAY03856	Amino acid sequenc
24	63	100.0	10	20	AAW94890	LHRH peptide fragm
25	63	100.0	10	20	AAW96765	Luteinising hormon
26	63	100.0	10	20	AAW84278	Hormone domain of
27	63	100.0	10	20	AAW83360	Luteinising hormon
28	63	100.0	10	21	AAB10930	Gonadorelin peptid
29	63	100.0	10	21	AAB15362	Human LHRH peptide
30	63	100.0	10	21	AAB20863	Gonadotropin relea
31	63	100.0	10	21	AAB20777	Luteinising hormon
32	63	100.0	10	21	AAY96084	Gonadotropin relea
33	63	100.0	10	21	AAB08103	Amino acid sequenc
34	63	100.0	10	21	AAB03590	Luteinising hormon
35	63	100.0	10	21	AAB06261	Gonadotrophin rele
36	63	100.0	10	21	AAY88576	Gonadotrophin-Rele
37	63	100.0	10	21	AAY82376	Mammalian releasin
38	63	100.0	10	21	AAY79054	Luteinising hormon
39	63	100.0	10	21	AAY91197	LHRH target antige
40	63	100.0	10	21	AAY68566	Luteinising hormon
41	63	100.0	10	21	AAY58136	Native mammalian g
42	63	100.0	10	21	AAY55061	Luteinising hormon
43	63	100.0	10	22	AAB87020	Gonadorelin peptid
44	63	100.0	10	22	AAB74991	Gonadotropin relea
45	63	100.0	10	22	AAB90963	Luteinising hormon

ALIGNMENTS

RESULT 1
AAP10411
ID AAP10411 standard; peptide; 10 AA.
XX
AC AAP10411;
XX
DT 25-MAR-2003 (updated)
DT 10-MAR-2003 (updated)
DT 01-JUL-2002 (updated)
DT 17-DEC-1992 (first entry)
XX
DE Luteinising Hormone Releasing Hormone.
XX
KW LHRH; Follicle Stimulating Factor; FSH; acne; hirsutism;
KW dysmenorrhea; precocious puberty; endometriosis; prostate cancer;
KW benign prostate hypertrophy; mammary tumour.
XX
OS Mammalia.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /label= OTHER
FT /note= "pyroglutamic acid"
FT Modified-site 10
FT /note= "amidated"
XX
PN BE885308-A.
XX
PD 19-MAR-1981.
XX
PF 23-FEB-1983; 83BE-0468932.
XX

PR 21-SEP-1979; 79FR-0023545.
XX
PA (ROUS) ROUSSEL-UCLAF.
XX
PI Labrie F, Raynaud J;
XX
DR WPI; 1981-23409D/14 (23409D).
XX
PT LH-RH, liberating factor for LH and FSH, and its agonists compsn.
PT - used to treat prostate adenocarcinoma, benign hypertrophy of
PT the prostate, hirsutism, acne, etc.
XX
PS Claim 1(a); Page 15; 27pp; French.
XX
CC A composition is claimed containing LHRH or its analogues. The
CC composition is used to treat prostate adenocarcinoma, benign
CC hypertrophy of the prostate, endometriosis, dysmenorrhea, hirsutism,
CC hormone-dependent mammary tumours, for treatment or prevention of
CC precocious puberty, delaying the onset of puberty and for treating
CC acne. The compositions may also contain antiandrogens.
CC See also AAP10412-P10418.
CC (Updated on 01-JUL-2002 to add missing PI field.)
CC (Updated on 10-MAR-2003 to add missing OS field.)
CC (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 63; DB 2; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.00032;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EHWSYGLRPG 10
||||||||||
Db 1 EHWSYGLRPG 10

RESULT 2
AAP10416
ID AAP10416 standard; peptide; 10 AA.
XX
AC AAP10416;
XX
DT 25-MAR-2003 (updated)
DT 10-MAR-2003 (updated)
DT 01-JUL-2002 (updated)
DT 17-DEC-1992 (first entry)
XX
DE Luteinising Hormone Releasing Hormone analogue #5.
XX
KW LHRH; Follicle Stimulating Factor; FSH; acne; hirsutism;
KW dysmenorrhea; precocious puberty; endometriosis; prostate cancer;
KW benign prostate hypertrophy; mammary tumour.
XX
OS Mammalia.
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /label= OTHER
FT /note= "pyroglutamic acid"
FT Modified-site 7
FT /label= OTHER
FT /note= "N-alpha-methyl-Leu"
FT Modified-site 10
FT /note= "amidated or absent, in which case Pro(9)
FT is Pro-NH-C2H5"
XX
PN BE885308-A.
XX
PD 19-MAR-1981.
XX
PF 23-FEB-1983; 83BE-0468932.
XX

PR 21-SEP-1979; 79FR-0023545.
XX
PA (ROUS) ROUSSEL-UCLAF.
XX
PI Labrie F, Raynaud J;
XX
DR WPI; 1981-23409D/14 (23409D).
XX
PT LH-RH, liberating factor for LH and FSH, and its agonists compsn.
PT - used to treat prostate adenocarcinoma, benign hypertrophy of
PT the prostate, hirsutism, acne, etc.
XX
PS Claim 1(f); Page 16; 27pp; French.
XX
CC A composition is claimed containing LHRH or its analogues. The
CC composition is used to treat prostate adenocarcinoma, benign
CC hypertrophy of the prostate, endometriosis, dysmenorrhea, hirsutism,
CC hormone-dependent mammary tumours, for treatment or prevention of
CC precocious puberty, delaying the onset of puberty and for treating
CC acne. The compositions may also contain antiandrogens.
CC See AAP10411-P10418.
CC (Updated on 01-JUL-2002 to add missing PI field.)
CC (Updated on 10-MAR-2003 to add missing OS field.)
CC (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 63; DB 2; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.00032;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EHWSYGLRPG 10
||||||||||
Db 1 EHWSYGLRPG 10

RESULT 3
AAP50222
ID AAP50222 standard; Protein; 10 AA.
XX
AC AAP50222;
XX
DT 25-MAR-2003 (updated)
DT 20-JAN-1992 (first entry)
XX
DE Gonadotrophin release stimulating hormone.
XX
KW GnRH; LH-RH; LRF; gonadotrophins; steroids; contraceptive.
XX
OS Synthetic.
XX
PN EP143573-A.
XX
PD 05-JUN-1985.
XX
PF 05-NOV-1984; 84EP-0307625.
XX
PR 29-NOV-1983; 83US-0556148.
PR 30-AUG-1985; 85US-0771517.
XX
PA (SALK) SALK INST BIOLOGICAL STUDIES.
XX
PI Roeske RW, Rivier JE, Vale WW;
XX
DR WPI; 1985-136434/23.
XX
PT New GnRH antagonist peptide(s) - useful as inhibitors of
PT gonadotropin(s) and/or steroid(s) for contraceptive use.
XX
PS Disclosure; Page 1; 20pp; English.
XX
CC The claimed peptide antagonists inhibit the release of gonadotrophins
CC and/or steroids. They are antagonistic to GnRH, inhibit ovulation, and

```
CC   may cause resorption of a fertilised egg if administered shortly after
CC   absorption. The peptides also have utility in male contraception, and
CC   in treatment of precoscious puberty, hormone dependent neoplasia,
CC   dysmenorrhoea and endometriosis.
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence   10 AA;

  Query Match           100.0%;  Score 63;  DB 6;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00032;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 4
AAP60127
ID   AAP60127 standard; Peptide; 10 AA.
XX
AC   AAP60127;
XX
DT   25-MAR-2003  (updated)
DT   31-OCT-2002  (updated)
DT   12-JUN-1991  (first entry)
XX
DE   Gonadoliberin antagonist.
XX
KW   Gonadoliberin antagonist; contraceptive; antitumor.
XX
OS   Unidentified.
XX
PN   EP201260-A.
XX
PD   12-NOV-1986.
XX
PF   28-APR-1986;   86EP-0303210.
XX
PR   09-MAY-1985;   85US-0732531.
XX
PA   (SALK ) SALK INST BIOLOGICAL STUDIES.
XX
PI   Rivier JEF,  Varga JI,  Hagler AT,  Struthers RS,  Perrin MH;
PI   Rivier CL,  Vale WW;
XX
DR   WPI; 1986-299774/46.
XX
PT   New peptide gonadotropin releasing hormone antagonists - useful
PT   esp. as contraceptives, for treating early puberty,
PT   hormone-dependent neoplasms etc.
XX
PS   Disclosure; Page 1; 33pp; English.
XX
CC   The decapeptide encodes a gonadoliberin antagonist, which may be
CC   used as a male contraceptive and as an antitumour (against steroid-
CC   dependent tumours).
CC   (Updated on 31-OCT-2002 to add missing OS field.)
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence   10 AA;

  Query Match           100.0%;  Score 63;  DB 7;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00032;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 5
AAP61403
ID   AAP61403 standard; protein; 10 AA.
XX
AC   AAP61403;
XX
DT   25-MAR-2003  (updated)
DT   09-JAN-2003  (updated)
DT   04-AUG-1991  (first entry)
XX
DE   Gonadotropin releasing hormone.
XX
KW   Gonadotropin releasing hormone; analogue; peptide synthesis;
KW   ovulation; veterinary medicine; fertility;
XX
OS   Unidentified.
XX
PN   DD232500-A.
XX
PD   29-JAN-1986.
XX
PF   08-MAY-1984;   84DD-0262804.
XX
PR   08-MAY-1984;   84DD-0262804.
XX
PA   (DEAK ) AKAD WISSENSCHAFTEN DDR.
XX
PI   Kaufmann KD,  Dolling R,  Handel L;
XX
DR   WPI; 1986-137868/22.
XX
PT   Prepn. of gonadotropin liberating hormone and analogues - by
PT   multistage rapid peptide synthesis in soln. without isolating
PT   intermediates
XX
PS   Disclosure; page 7; 8pp; german.
XX
CC   The gonadotropin releasing hormone and its analogues are prepd. by a
CC   new multistage rapid peptide synthesis method in soln., where the
CC   intermediates are not isolated. The process is rapid and gives very
CC   pure peptide quickly and using little equipment. The peptide can be
CC   used in veterinary medicine to synchronise ovulation in large animal
CC   herds, and in human medicine in the treatment of fertility disorders.
CC   (Updated on 09-JAN-2003 to add missing OS field.)
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence   10 AA;

  Query Match           100.0%;  Score 63;  DB 7;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00032;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 6
AAP60576
ID   AAP60576 standard; Protein; 10 AA.
XX
AC   AAP60576;
XX
DT   25-MAR-2003  (updated)
DT   27-OCT-1991  (first entry)
XX
DE   Novel decapeptide with LHRH inhibition activity.
XX
KW   Lutenising hormone releasing hormone activity.
XX
OS   Synthetic.
XX
PN   JP61210098-A.
XX
PD   18-SEP-1986.
```

```
XX
PF   23-AUG-1985;   85JP-0185616.
XX
PR   23-AUG-1984;   84US-0643643.
XX
PA   (TULA ) ADMIN TULANE EDUCAT.
PA   (TULA ) TULANE EDUCATIONAL FUND.
XX
DR   WPI; 1986-321434/49.
XX
PT   Deca:peptide - inhibits LH-RH hormone release activity.
XX
PS   Disclosure; Page 990; 5pp; Japanese.
XX
CC   Peptide inhibits the release of lutenising hormone releasing hormone.
CC   See also AAP60575.
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence   10 AA;

  Query Match             100.0%;  Score 63;  DB 7;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00032;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 7
AAP70922
ID   AAP70922 standard; peptide; 10 AA.
XX
AC   AAP70922;
XX
DT   01-MAY-1991  (first entry)
XX
DE   Luteinising hormone releasing hormone agonist.
XX
KW   LHRH; contraception; precocious puberty; endometriosis;
KW   breast tumours; prostate tumours; ectopic tumours; menopause.
XX
OS   synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   10..10
FT                   /label= other
FT                   /note= "other= ketomethylene(Gly), dihydroketo-
FT                         methylene(Gly)"
FT   Modified-site   1..1
FT                   /label= other
FT                   /note= "other= pyroglutamic acid"
XX
PN   US4705778-A.
XX
PD   10-NOV-1987.
XX
PF   22-OCT-1985;   85US-0790031.
XX
PR   22-OCT-1985;   85US-0790031.
XX
PA   (STRI ) SRI INTERNATIONAL.
XX
PI   Almquist RG,  Olsen CM;
XX
DR   WPI; 1987-334627/47.
XX
PT   Orally active luteinising hormone-releasing hormone peptide
PT   analogues - have keto:methylene or hydroxy:ethylene in place of
PT   amide between proline(9) and glycine(10)
XX
PS   Disclosure; page 4; 17pp; English.
XX
CC   This luteinising hormone releasing hormone (LHRH) agonist has
CC   either a ketomethylene or dihydroketomethylene gp. replacing the
CC   amide linkage between residues 9 and 10 in LHRH.  This results in
CC   an increase in oral activity.  It is useful for eg male and
CC   female contraception, treatment of precocious puberty and endo-
CC   metriosis and treatment of breast- and prostate tumours.
CC   See also AAP70923-27.
XX
SQ   Sequence   10 AA;

  Query Match             100.0%;  Score 63;  DB 8;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00032;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 8
AAP90630
ID   AAP90630 standard; protein; 10 AA.
XX
AC   AAP90630;
XX
DT   03-OCT-2002  (updated)
DT   14-JUN-1989  (first entry)
XX
DE   Sequence of luteinizing hormone releasing hormone (LHRH).
XX
KW   Luteinizing hormone releasing hormone (LHRH); LHRH antagonist;
KW   19-nor-progestational agent; female gynaecological disorders.
XX
OS   Synthetic.
XX
PN   EP301850-A.
XX
PD   01-FEB-1989.
XX
PF   28-JUL-1988;   88EP-0306947.
XX
PR   31-JUL-1987;   87US-0080518.
XX
PA   (SYNT ) SYNTEX (USA) INC.
XX
PI   Vickery BH;
XX
DR   WPI; 1989-033720/05.
XX
PT   Compsn. comprising LHRH-antagonist and 19-nor progestational agent -
PT   for treating female gynaecological disorders based on gonads
PT   steroid producn.
XX
PS   Disclosure; Page 2; 31pp; English.
XX
CC   Analogues (I) of the sequence pref. have amino acid (AA) substitutions at
CC   posns. 2 (his is replaced by a D-AA) and 6 (gly is replaced by a D-AA).
CC   A therapeutically effective amt. of such an antagonist is contained in a
CC   pharmaceutical compsn. alongside a menopausal-symtom-alleviating amt. of
CC   a 19-nor progestational agent (II) (pref. both in single formulation).
CC   The compsn. is pref. administered nasally in dosages of 0.01-1 mg/kg/ day
CC   for (I) and 0.02-0.07 mg/kg/day for (II). May be used for inhibition of
CC   ovulation, and treatment of eg endometriosis, breast cancer, polycistic
CC   ovarian disease, or precocious puberty in female mammals.
CC   (Updated on 03-OCT-2002 to add missing OS field.)
XX
SQ   Sequence   10 AA;

  Query Match             100.0%;  Score 63;  DB 10;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00032;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
```

```
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 9
AAR15713
ID   AAR15713 standard; Protein; 10 AA.
XX
AC   AAR15713;
XX
DT   25-MAR-2003  (updated)
DT   24-JAN-1992  (first entry)
XX
DE   Peptide #1 with homology to LHRH.
XX
KW   luliberin.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= OTHER
FT                   /note= "pyroGlu"
FT   Modified-site   9
FT                   /label= Hyp
FT   Modified-site   10
FT                   /label= OTHER
FT                   /note= "amidated"
XX
PN   WO9116343-A.
XX
PD   31-OCT-1991.
XX
PF   22-APR-1991;   91WO-FR00332.
XX
PR   23-APR-1990;   90FR-0005147.
XX
PA   (INRM ) INSERM INST NAT SANTE & RECH MED.
XX
PI   Gautron J,  Pattou E,  Kordon C,  Bauer K;
XX
DR   WPI; 1991-339753/46.
XX
PT   New peptide homologous with luteinising hormone-releasing hormone
PT   - used to treat gynaecological conditions, cancer of gonads and
PT   sec. sexual organs, psychiatric conditions and in assays
XX
PS   Claim 3; Page 50; 83pp; French.
XX
CC   The C-terminal residue (Gly-CO-NH2) can be replaced by ethylamide.
CC   This peptide and fragments of it (i.e. amino acids 4-10, 5-10, 6-10
CC   and 7-10) are agonists and antagonists of LHRH. They are useful for
CC   treating e.g. precocious or delayed puberty, psychiatric disorders
CC   esp. those of the libido or sexual aggression, etc. In addition they
CC   are useful for functional exploration of the hypothalamus-hypophyseal
CC   axis and for radioimmunological or biological assay (of LH, FSH and
CC   steroid levels) in biological fluids and biopsy samples.
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence   10 AA;

  Query Match             100.0%;  Score 63;  DB 12;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00032;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 10
AAR26819
ID   AAR26819 standard; peptide; 10 AA.
XX
AC   AAR26819;
XX
DT   25-MAR-2003  (updated)
DT   10-FEB-1993  (first entry)
XX
DE   LH releasing hormone antagonists.
XX
KW   Luteinising hormone; LHRH; hypothalamic; antiovulatory; tumours;
KW   antineoplastic; precocious puberty; ovulation; contraceptive.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1
FT                   /label= pGlu
FT   Modified-site   10
FT                   /note= "amidated"
XX
PN   WO9213883-A1.
XX
PD   20-AUG-1992.
XX
PF   29-JAN-1992;   92WO-US00776.
XX
PR   30-JAN-1991;   91US-0647786.
XX
PA   (TULA ) TULANE EDUCATIONAL FUND.
XX
PI   Janaky T,  Juhasz A,  Schally AV;
XX
DR   WPI; 1992-299984/36.
XX
PT   New deca:peptide luteinising hormone-releasing hormone
PT   antagonists - for treating precocious puberty, hormone dependent
PT   tumours, endometritis, cystic diseases; also as contraceptive
XX
PS   Disclosure; Page 1; 43pp; English.
XX
CC   The decapeptides is an antagonistic analogue of hypothalamic LHRH
CC   which possesses high antiovulatory and antineoplastic activity, is
CC   free of anaphylactoid side effects and is believed to be free of
CC   endematogenic effects.  The peptide may be used to treat precocious
CC   puberty, hormone dependent tumours, e.g. malignant and benign
CC   prostate tumours, e.g. secondary amenorrhoea, endometriosis and
CC   ovarian and mammary cystic diseases.  The peptide is also useful
CC   for regulating ovulation e.g. as precoital or postcoital
CC   contraceptives, for synchronising oestrus in livestock and for
CC   improving the "rhythm" method.  It is also useful for regulating
CC   the human menopausal gonadotropin, follicle stimulating and LH levels
CC   during premenopausal and postmenopausal periods.  As it suppresses
CC   the spermatogenesis and testosterone levels in males, it may be of
CC   potential use for male contraception.
CC   See also AAR26818, AAR29046-7.
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence   10 AA;

  Query Match             100.0%;  Score 63;  DB 13;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00032;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 11
AAR62689
ID   AAR62689 standard; peptide; 10 AA.
XX
AC   AAR62689;
XX
```

DT 25-MAR-2003 (updated)
DT 10-SEP-1995 (first entry)
XX
DE LHRH hapten for attachment to universal immune stimulator.
XX
KW Helper T cell epitope; universal immune stimulator; invasin; hapten;
KW vaccine; LHRH; luteinising hormone releasing hormone; prostate;
KW androgen-dependent carcinoma; antitumour; infertility.
XX
OS Homo sapiens.
XX
PN WO9425060-A1.
XX
PD 10-NOV-1994.
XX
PF 28-APR-1994; 94WO-US04832.
XX
PR 27-APR-1993; 93US-0057166.
PR 14-APR-1994; 94US-0229275.
XX
PA (LADD/) LADD A E.
PA (WANG/) WANG C Y.
PA (ZAMB/) ZAMB T.
XX
PI Ladd AE, Wang CY, Zamb T;
XX
DR WPI; 1994-357910/44.
XX
PT Immunogenic luteinising hormone releasing hormone peptide(s) -
PT that suppress LHRH activity in males and females
XX
PS Claim 6; Page 104; 213pp; English.
XX
CC Synthetic immunogenic peptides are provided in which a universal immune
CC stimulator is linked to a peptide or protein hapten containing B cell
CC and/or cytotoxic T lymphocyte epitopes, giving a product which causes
CC potent immune responses to the coupled peptide or protein. The
CC stimulator consists of (A) a promiscuous helper T cell epitope (Th)
CC which elicits an immune response to the coupled peptide in members of
CC a heterogeneous population expressing diverse HLA phenotypes, and (B)
CC an adjuvant peptide sequence from the invasin protein of Yersinia.
CC Spacer amino acid sequences (e.g. Gly-Gly) can be provided between the
CC invasin and Th domains and between the immune stimulator and hapten
CC components. When the hapten is LHRH, then optionally the invasin domain
CC can be omitted from the immune stimulator component.
CC The present sequence represents an LHRH hapten which can be
CC attached to the stimulator to provide a potent vaccine for
CC treating e.g. prostatic hyperplasia, androgen-dependent carcinoma,
CC prostatic carcinoma, testicular carcinoma, endometriosis, benign
CC uterine tumours, recurrent functional ovarian cysts, (severe)
CC premenstrual syndrome or oestrogen-dependent breast cancer, or for
CC induction of infertility.
CC (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 63; DB 15; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.00032;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EHWSYGLRPG 10
||||||||||
Db 1 EHWSYGLRPG 10

RESULT 12
AAR91197
ID AAR91197 standard; peptide; 10 AA.
XX
AC AAR91197;
XX
DT 06-SEP-1996 (first entry)
XX
DE LHRH peptide.
XX
KW luteinising hormone releasing hormone; follicle stimulating; FSH;
KW gonadorelin.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /note= "pyroglutamic acid"
FT Modified-site 10
FT /note= "Gly-NH2"
XX
PN CA1335403-C.
XX
PD 25-APR-1995.
XX
PF 06-MAY-1988; 88CA-0566195.
XX
PR 06-MAY-1988; 88CA-0566195.
XX
PA (BOEH) BIO-MEGA/BOEHRINGER INGELHEIM RES INC.
XX
PI Gauthier JA;
XX
DR WPI; 1995-179260/24.
XX
PT Prepn. of luteinising hormone and follicle stimulating hormone
PT releasing peptide(s) - by cleaving a protected nona-peptide resin
PT by photolysis to remove the support, coupling with glycinamide and
PT deprotecting
XX
PS Claim 1; Page ?; 18pp; English.
XX
CC A new method is provided for preparing a decapeptide of formula
CC pGlu-His-Trp-Ser-Tyr-Xaa-Leu-Arg-Pro-Gly-NH2, in which a protected
CC nonapeptide corresponding to the N-terminal of the peptide is first
CC prepared on a benzhydrylamine resin, the Pro residue being attached
CC to the resin via a photosensitive linker. The nonapeptide is cleaved
CC from the resin by photolysis, the C-terminal is activated, and the
CC product is coupled with glycinamide to add the Gly-NH2. The
CC decapeptide is then deprotected. In the decapeptide, Xaa is Gly (giving
CC gonadorelin; the present sequence), D-2-Nal or D-Trp.
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 63; DB 16; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.00032;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EHWSYGLRPG 10
||||||||||
Db 1 EHWSYGLRPG 10

RESULT 13
AAR86845
ID AAR86845 standard; peptide; 10 AA.
XX
AC AAR86845;
XX
DT 25-MAR-2003 (updated)
DT 22-MAR-1996 (first entry)
XX
DE Gonadotropin releasing hormone.
XX
KW Gonadotropin releasing hormone; GnRH; motility disorder;
KW functional bowel disease; leuprolide acetate; luteinising hormone;
KW progesterone; relaxin; autonomic nervous system; drug delivery; therapy;
KW irritable bowel syndrome; diabetes; scleroderma; Parkinson's disease.
XX
OS Synthetic.
XX

```
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= OTHER
FT                   /note= "pyroglutamic acid"
FT   Cleavage-site   6..7
FT   Modified-site   10
FT                   /note= "amidated"
XX
PN   US5434136-A.
XX
PD   18-JUL-1995.
XX
PF   19-OCT-1992;   92US-0965675.
XX
PR   19-OCT-1992;   92US-0965675.
PR   14-DEC-1990;   90US-0626402.
PR   14-AUG-1991;   91US-0744977.
XX
PA   (MATH/) MATHIAS J R.
XX
PI   Mathias JR;
XX
DR   WPI; 1995-263259/34.
XX
PT   Treating motility disorders associated with systemic lupus
PT   erythematosus - by admin. of gonadotropin releasing hormone
PT   analogue, to control nausea, vomiting, abdominal pain etc.
XX
PS   Disclosure; Column 3; 14pp; English.
XX
CC   This sequence represents naturally occuring gonadotropin releasing
CC   hormone (GnRH). Analogues of GnRH are represented by AAR86846-56.
CC   Motility disorders, including functional bowel disease, can be treated
CC   by the administration of one of the GnRH analogues shown here (e.g.
CC   leuprolide acetate). This is due to the GnRH analogue inhibiting
CC   production of reproductive hormones such as luteinising hormone,
CC   progesterone and relaxin. Motility disorders are caused from
CC   abnormalities of the autonomic nervous system. Due to this, the GnRH
CC   analogues may also exert effects on the autonomic nervous system. The
CC   GnRH analogues are administered by injection (which may be intavenous,
CC   subcutaneous or intramuscular), or by a drug delivery system. The drug
CC   delivery system can comprise a drug implant with timed release, a nasal
CC   spray or an injection of a long-lasting depo form. This method is used
CC   to alleviate symptoms such as nausea, vomiting, abdominal pain and
CC   altered bowel habits. The sequences can be used to treat motility
CC   disorders in a wide variety of other diseases including irritable bowel
CC   syndrome, diabetes, scleroderma and Parkinson's disease.
CC   (Updated on 25-MAR-2003 to correct PF field.)
XX
SQ   Sequence   10 AA;

  Query Match             100.0%;  Score 63;  DB 16;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00032;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 14
AAR75152
ID   AAR75152 standard; Peptide; 10 AA.
XX
AC   AAR75152;
XX
DT   19-DEC-1995  (first entry)
XX
DE   Gonadotropin releasing hormone.
XX
KW   Gonadotropin releasing hormone; GnRH; gonadoliberin; reproduction;
KW   transgenic animal; transgenic fish; transgenic fowl.
XX
OS   Mammalia.
XX
PN   WO9512309-A1.
XX
PD   11-MAY-1995.
XX
PF   04-NOV-1994;   94WO-US12763.
XX
PR   05-NOV-1993;   93US-0147771.
XX
PA   (STRD ) UNIV LELAND STANFORD JUNIOR.
PA   (UYOR-) UNIV OREGON HEALTH SCI.
PA   (UYOR-) UNIV OREGON STATE.
XX
PI   Adelman JP,  Fernald RD;
XX
DR   WPI; 1995-185526/24.
XX
PT   New gonadotropin releasing hormone preprohormone DNA - used to
PT   develop prods. for regulation of reproductive function and diagnosis
PT   of reproductive capacity and disease
XX
PS   Disclosure; Fig.1a; 85pp; English.
XX
CC   8 Different forms of GnRH (given in AAR75152-59) have previously
CC   been isolated from vertebrate species. A precursor for an
CC   additional form of GnRH, (Ser8)-GnRH (AAR75151), has now been
CC   obtd.
XX
SQ   Sequence   10 AA;

  Query Match             100.0%;  Score 63;  DB 16;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00032;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 15
AAW65201
ID   AAW65201 standard; peptide; 10 AA.
XX
AC   AAW65201;
XX
DT   02-OCT-1998  (first entry)
XX
DE   Luteinising hormone-releasing hormone (LH-RH).
XX
KW   Bradykinin; N-benzylglycine; agonist; receptor study; antagonist;
KW   achiral; analgesic; luteinising hormone-releasing hormone; LHRH;
KW   gonadoliberin.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "Pyroglutamic acid"
FT   Modified-site   10
FT                   /note= "C-terminal amide"
XX
PN   US5527882-A.
XX
PD   18-JUN-1996.
XX
PF   07-NOV-1994;   94US-0335202.
XX
PR   07-JUL-1989;   89US-0376839.
PR   16-SEP-1992;   92US-0945664.
PR   07-NOV-1994;   94US-0335202.
XX
PA   (REGC ) UNIV CALIFORNIA.
```

XX
PI Mitchell AR, Young JD;
XX
DR WPI; 1996-299898/30.
XX
PT New bradykinin analogues contg. N-benzyl-glycine - useful as
PT bradykinin agonists or antagonists, useful e.g. as analgesics
XX
PS Disclosure; Columns 11-12; 15pp; English.
XX
CC The invention relates to the obtaining of a potent agonist or antagonist
CC peptide by the replacement of selected amino acids with synthetic
CC achiral amino acids. The present sequence represents a luteinising
CC hormone-releasing hormone (LHRH).
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 63; DB 17; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.00032;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EHWSYGLRPG 10
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Db 1 EHWSYGLRPG 10

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Job time : 41 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:23:09 ; Search time 29 Seconds
(without alignments)
62.952 Million cell updates/sec

Title: US-09-462-089-1
Perfect score: 63
Sequence: 1 EHWSYGLRPG 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 666188 seqs, 182559486 residues

Total number of hits satisfying chosen parameters: 85434

Minimum DB seq length: 0
Maximum DB seq length: 10

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	63	100.0	10	11	US-09-964-201A-28	Sequence 28, Appl
2	63	100.0	10	12	US-10-117-364-1	Sequence 1, Appli
3	63	100.0	10	12	US-10-311-688-4	Sequence 4, Appli
4	63	100.0	10	14	US-10-184-126-1	Sequence 1, Appli
5	63	100.0	10	15	US-10-115-553-1	Sequence 1, Appli
6	63	100.0	10	15	US-10-122-483-1	Sequence 1, Appli
7	60	95.2	10	9	US-09-019-010-2	Sequence 2, Appli
8	60	95.2	10	11	US-09-964-201A-32	Sequence 32, Appl
9	60	95.2	10	11	US-09-305-924-9	Sequence 9, Appli
10	60	95.2	10	12	US-10-351-641-1143	Sequence 1143, Ap
11	60	95.2	10	12	US-10-351-641-1309	Sequence 1309, Ap
12	60	95.2	10	12	US-10-351-641-1344	Sequence 1344, Ap
13	58	92.1	10	10	US-09-810-601-1	Sequence 1, Appli
14	58	92.1	10	11	US-09-305-924-1	Sequence 1, Appli
15	55	87.3	10	12	US-10-311-688-3	Sequence 3, Appli
16	52	82.5	10	9	US-09-848-834A-1	Sequence 1, Appli
17	52	82.5	10	10	US-09-810-601-2	Sequence 2, Appli
18	52	82.5	10	10	US-09-810-601-3	Sequence 3, Appli
19	52	82.5	10	10	US-09-810-601-4	Sequence 4, Appli
20	52	82.5	10	14	US-10-109-331-2	Sequence 2, Appli
21	50	79.4	10	12	US-10-278-364A-9	Sequence 9, Appli
22	50	79.4	10	14	US-10-054-552-1	Sequence 1, Appli
23	47	74.6	9	10	US-09-746-945-2	Sequence 2, Appli
24	45	71.4	10	10	US-09-746-945-1	Sequence 1, Appli
25	45	71.4	10	10	US-09-810-601-8	Sequence 8, Appli
26	45	71.4	10	10	US-09-810-601-9	Sequence 9, Appli
27	45	71.4	10	10	US-09-810-601-10	Sequence 10, Appl
28	45	71.4	10	10	US-09-810-601-11	Sequence 11, Appl
29	45	71.4	10	10	US-09-810-601-12	Sequence 12, Appl
30	45	71.4	10	10	US-09-810-601-13	Sequence 13, Appl
31	45	71.4	10	10	US-09-810-601-14	Sequence 14, Appl
32	45	71.4	10	10	US-09-810-601-15	Sequence 15, Appl
33	45	71.4	10	10	US-09-810-601-16	Sequence 16, Appl
34	45	71.4	10	10	US-09-810-601-20	Sequence 20, Appl
35	45	71.4	10	10	US-09-810-601-21	Sequence 21, Appl
36	45	71.4	10	10	US-09-810-601-22	Sequence 22, Appl
37	45	71.4	10	10	US-09-810-601-23	Sequence 23, Appl
38	45	71.4	10	10	US-09-810-601-24	Sequence 24, Appl
39	45	71.4	10	10	US-09-810-601-25	Sequence 25, Appl
40	45	71.4	10	10	US-09-810-601-26	Sequence 26, Appl
41	45	71.4	10	10	US-09-810-601-27	Sequence 27, Appl
42	45	71.4	10	10	US-09-810-601-28	Sequence 28, Appl
43	45	71.4	10	10	US-09-810-601-32	Sequence 32, Appl
44	45	71.4	10	10	US-09-810-601-33	Sequence 33, Appl
45	45	71.4	10	10	US-09-810-601-34	Sequence 34, Appl

ALIGNMENTS

RESULT 1
US-09-964-201A-28
; Sequence 28, Application US/09964201A
; Publication No. US20030091575A1
; GENERAL INFORMATION:
; APPLICANT: Kenten, John H
; APPLICANT: Tramontano, Alfonso
; APPLICANT: Pilon, Aprile L
; APPLICANT: Lohnas, Gerald L
; APPLICANT: Roberts, Steven F
; TITLE OF INVENTION: HEAT-SHOCK FUSION-BASED VACCINE SYSTEM
; FILE REFERENCE: U.S. Patent Application No. US20030091575A1 09\026,276
; CURRENT APPLICATION NUMBER: US/09/964,201A
; CURRENT FILING DATE: 2002-05-21
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 28
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Porcine
US-09-964-201A-28

Query Match 100.0%; Score 63; DB 11; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.00075;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EHWSYGLRPG 10
||||||||||
Db 1 EHWSYGLRPG 10

RESULT 2
US-10-117-364-1
; Sequence 1, Application US/10117364
; Publication No. US20030181385A1
; GENERAL INFORMATION:
; APPLICANT: Roeske, Roger W.
; TITLE OF INVENTION: LHRH Antagonist Peptides

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;  FILE REFERENCE: PPI-007CPUS
;  CURRENT APPLICATION NUMBER: US/10/117,364
;  CURRENT FILING DATE:  2002-04-05
;  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US/08/973,378
;  PRIOR FILING DATE: EARLIER FILING DATE: 1998-04-06
;  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 08/480,494
;  PRIOR FILING DATE: EARLIER FILING DATE: 1995-06-07
;  NUMBER OF SEQ ID NOS: 1
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-117-364-1

  Query Match             100.0%;  Score 63;  DB 12;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00075;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 3
US-10-311-688-4
; Sequence 4, Application US/10311688
; Publication No. US20030191164A1
; GENERAL INFORMATION:
;  APPLICANT: Yamanouchi Pharmaceutical Co., Ltd.
;  TITLE OF INVENTION: PROPANE-1,3-DIONE DERIVATIVE
;  FILE REFERENCE: Q73475
;  CURRENT APPLICATION NUMBER: US/10/311,688
;  CURRENT FILING DATE:  2002-12-19
;  PRIOR APPLICATION NUMBER: JPA P. 2000-204425
;  PRIOR FILING DATE: 2000-07-05
;  PRIOR APPLICATION NUMBER: JPA P. 2001-153372
;  PRIOR FILING DATE: 2001-05-23
;  PRIOR APPLICATION NUMBER: PCT/JP01/05813
;  PRIOR FILING DATE: 2001-05-23
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 4
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-311-688-4

  Query Match             100.0%;  Score 63;  DB 12;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00075;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 4
US-10-184-126-1
; Sequence 1, Application US/10184126
; Publication No. US20020183257A1
; GENERAL INFORMATION:
;  APPLICANT: EL TAYAR, Nabil
;  APPLICANT:  ZHAO, Xuan
;  APPLICANT:  BENTLEY, Michael D.
;  TITLE OF INVENTION: PEG-LHRH ANALOG CONJUGATES
;  FILE REFERENCE: EL-TAYAR=2A
;  CURRENT APPLICATION NUMBER: US/10/184,126
;  CURRENT FILING DATE:  2002-06-28
;  PRIOR APPLICATION NUMBER: US/09/698,134
;  PRIOR FILING DATE: 2000-10-30
;  PRIOR APPLICATION NUMBER: 60/083,340
;  PRIOR FILING DATE: 1998-04-28
;  PRIOR APPLICATION NUMBER: PCT/US99/09160
;  PRIOR FILING DATE: 1999-04-28
;  NUMBER OF SEQ ID NOS: 1
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (1)..(1)
;   OTHER INFORMATION: Glu is modified with a pyro group.
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (10)..(10)
;   OTHER INFORMATION: Gly is modified with -NH2 group.
US-10-184-126-1

  Query Match             100.0%;  Score 63;  DB 14;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00075;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 5
US-10-115-553-1
; Sequence 1, Application US/10115553
; Publication No. US20030040482A1
; GENERAL INFORMATION:
;  APPLICANT: Roeske, Roger W.
;  TITLE OF INVENTION: LHRH Antagonist Peptides
;  FILE REFERENCE: PPI-007CPUS
;  CURRENT APPLICATION NUMBER: US/10/115,553
;  CURRENT FILING DATE:  2002-04-02
;  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 08/973,378
;  PRIOR FILING DATE: EARLIER FILING DATE: 1998-04-06
;  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 08/480,494
;  PRIOR FILING DATE: EARLIER FILING DATE: 1995-06-07
;  NUMBER OF SEQ ID NOS: 1
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-115-553-1

  Query Match             100.0%;  Score 63;  DB 15;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00075;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 6
US-10-122-483-1
; Sequence 1, Application US/10122483
; Publication No. US20030044936A1
; GENERAL INFORMATION:
;  APPLICANT: Hwang, Jaulang
;  APPLICANT:  Hsu, Chia-Tse
;  APPLICANT:  Ting, Chun-Jen
;  TITLE OF INVENTION: PEPTIDE REPEAT IMMUNOGENS
;  FILE REFERENCE: 08919-071001
;  CURRENT APPLICATION NUMBER: US/10/122,483
;  CURRENT FILING DATE:  2002-07-15
;  PRIOR APPLICATION NUMBER: 09/412,558
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;  PRIOR FILING DATE: 1999-10-05
;  NUMBER OF SEQ ID NOS: 13
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
;    LENGTH: 10
;    TYPE: PRT
;    ORGANISM: Homo sapiens
US-10-122-483-1

  Query Match             100.0%;  Score 63;  DB 15;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00075;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||||||||
Db          1 EHWSYGLRPG 10


RESULT 7
US-09-019-010-2
; Sequence 2, Application US/09019010
; Patent No. US20010014330A1
;  GENERAL INFORMATION:
;    APPLICANT:  HARLAND, RICHARD
;    APPLICANT:  MANNS, JOHN G.
;    APPLICANT:  ACRES, STEPHEN D.
;    TITLE OF INVENTION:  IMMUNIZATION AGAINST ENDOGENOUS
;    TITLE OF INVENTION:  MOLECULES
;    NUMBER OF SEQUENCES:  6
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  ROBINS & ASSOCIATES
;      STREET:  90 MIDDLEFIELD ROAD, SUITE 200
;      CITY:  MENLO PARK
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/019,010
;      FILING DATE:  05-FEB-1998
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/036,883
;      FILING DATE:  05-FEB-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  MCCRACKEN, THOMAS P.
;      REGISTRATION NUMBER:  38,548
;      REFERENCE/DOCKET NUMBER:  9001-0035
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (650) 325-7812
;      TELEFAX:  (650) 325-7823
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  10 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-09-019-010-2

  Query Match             95.2%;  Score 60;  DB 9;  Length 10;
  Best Local Similarity   90.0%;  Pred. No. 0.0023;
  Matches    9;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|||||||||
Db          1 QHWSYGLRPG 10


RESULT 8
US-09-964-201A-32
; Sequence 32, Application US/09964201A
; Publication No. US20030091575A1
; GENERAL INFORMATION:
;  APPLICANT: Kenten, John H
;  APPLICANT:  Tramontano, Alfonso
;  APPLICANT:  Pilon, Aprile L
;  APPLICANT:  Lohnas, Gerald L
;  APPLICANT:  Roberts, Steven F
;  TITLE OF INVENTION: HEAT-SHOCK FUSION-BASED VACCINE SYSTEM
;  FILE REFERENCE: U.S. Patent Application No. US20030091575A1 09\026,276
;  CURRENT APPLICATION NUMBER: US/09/964,201A
;  CURRENT FILING DATE:  2002-05-21
;  NUMBER OF SEQ ID NOS: 35
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 32
;    LENGTH: 10
;    TYPE: PRT
;    ORGANISM: Porcine
US-09-964-201A-32

  Query Match             95.2%;  Score 60;  DB 11;  Length 10;
  Best Local Similarity   90.0%;  Pred. No. 0.0023;
  Matches    9;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|||||||||
Db          1 QHWSYGLRPG 10


RESULT 9
US-09-305-924-9
; Sequence 9, Application US/09305924A
; Publication No. US20030091579A1
; GENERAL INFORMATION:
;  APPLICANT: Jack G. Manns
;  APPLICANT: Stephen D. Acres
;  APPLICANT: Richard Harland
;  TITLE OF INVENTION: METHODS OF RAISING ANIMALS FOR MEAT PRODUCTION
;  FILE REFERENCE: 9001-0048
;  CURRENT APPLICATION NUMBER: US/09/305,924A
;  CURRENT FILING DATE: 1999-05-05
;  EARLIER APPLICATION NUMBER: US 60/084,217
;  EARLIER FILING DATE: 1998-05-05
;  NUMBER OF SEQ ID NOS: 14
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 9
;    LENGTH: 10
;    TYPE: PRT
;    ORGANISM: GnRH
US-09-305-924-9

  Query Match             95.2%;  Score 60;  DB 11;  Length 10;
  Best Local Similarity   90.0%;  Pred. No. 0.0023;
  Matches    9;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|||||||||
Db          1 QHWSYGLRPG 10


RESULT 10
US-10-351-641-1143
; Sequence 1143, Application US/10351641
; Publication No. US20030186874A1
; GENERAL INFORMATION:
;  APPLICANT: Barney, S.
;  APPLICANT:  Guthrie, K.
;  APPLICANT:  Merutka, G.
;  APPLICANT:  Anwer, M.
;  APPLICANT:  Lambert, D.
;  TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC
;  TITLE OF INVENTION:  PROPERTIES
```

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;  FILE REFERENCE: 7872-100
;  CURRENT APPLICATION NUMBER: US/10/351,641
;  CURRENT FILING DATE:  2003-01-24
;  PRIOR APPLICATION NUMBER: 09/350,641
;  PRIOR FILING DATE: 1999-07-09
;  PRIOR APPLICATION NUMBER: 09/315,304
;  PRIOR FILING DATE: 1999-05-20
;  PRIOR APPLICATION NUMBER: 09/082,279
;  PRIOR FILING DATE: 1998-05-20
;  NUMBER OF SEQ ID NOS: 1757
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1143
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Core polypeptide
US-10-351-641-1143

  Query Match             95.2%;  Score 60;  DB 12;  Length 10;
  Best Local Similarity   90.0%;  Pred. No. 0.0023;
  Matches    9;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|||||||||
Db          1 QHWSYGLRPG 10


RESULT 11
US-10-351-641-1309
; Sequence 1309, Application US/10351641
; Publication No. US20030186874A1
; GENERAL INFORMATION:
;  APPLICANT: Barney, S.
;  APPLICANT:  Guthrie, K.
;  APPLICANT:  Merutka, G.
;  APPLICANT:  Anwer, M.
;  APPLICANT:  Lambert, D.
;  TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC
;  TITLE OF INVENTION:  PROPERTIES
;  FILE REFERENCE: 7872-100
;  CURRENT APPLICATION NUMBER: US/10/351,641
;  CURRENT FILING DATE:  2003-01-24
;  PRIOR APPLICATION NUMBER: 09/350,641
;  PRIOR FILING DATE: 1999-07-09
;  PRIOR APPLICATION NUMBER: 09/315,304
;  PRIOR FILING DATE: 1999-05-20
;  PRIOR APPLICATION NUMBER: 09/082,279
;  PRIOR FILING DATE: 1998-05-20
;  NUMBER OF SEQ ID NOS: 1757
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1309
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Core polypeptide
US-10-351-641-1309

  Query Match             95.2%;  Score 60;  DB 12;  Length 10;
  Best Local Similarity   90.0%;  Pred. No. 0.0023;
  Matches    9;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|||||||||
Db          1 QHWSYGLRPG 10


RESULT 12
US-10-351-641-1344
; Sequence 1344, Application US/10351641
; Publication No. US20030186874A1
; GENERAL INFORMATION:
;  APPLICANT: Barney, S.
;  APPLICANT:  Guthrie, K.
;  APPLICANT:  Merutka, G.
;  APPLICANT:  Anwer, M.
;  APPLICANT:  Lambert, D.
;  TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC
;  TITLE OF INVENTION:  PROPERTIES
;  FILE REFERENCE: 7872-100
;  CURRENT APPLICATION NUMBER: US/10/351,641
;  CURRENT FILING DATE:  2003-01-24
;  PRIOR APPLICATION NUMBER: 09/350,641
;  PRIOR FILING DATE: 1999-07-09
;  PRIOR APPLICATION NUMBER: 09/315,304
;  PRIOR FILING DATE: 1999-05-20
;  PRIOR APPLICATION NUMBER: 09/082,279
;  PRIOR FILING DATE: 1998-05-20
;  NUMBER OF SEQ ID NOS: 1757
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1344
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Core polypeptide
US-10-351-641-1344

  Query Match             95.2%;  Score 60;  DB 12;  Length 10;
  Best Local Similarity   90.0%;  Pred. No. 0.0023;
  Matches    9;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              :|||||||||
Db          1 QHWSYGLRPG 10


RESULT 13
US-09-810-601-1
; Sequence 1, Application US/09810601
; Patent No. US20020177545A1
; GENERAL INFORMATION:
;  APPLICANT: Donovan, Stephen
;  TITLE OF INVENTION: Composotions and Methods for Treating Gonadotrophin
;  TITLE OF INVENTION:  Related Illnesses
;  FILE REFERENCE: 2947
;  CURRENT APPLICATION NUMBER: US/09/810,601
;  CURRENT FILING DATE:  2001-03-15
;  NUMBER OF SEQ ID NOS: 44
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: human
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (1)
;   OTHER INFORMATION: Xaa at position 1 is PyroGlu; PYRROLIDONE
;   OTHER INFORMATION: CARBOXYLIC ACID
US-09-810-601-1

  Query Match             92.1%;  Score 58;  DB 10;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.0048;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 HWSYGLRPG 10
              |||||||||
Db          2 HWSYGLRPG 10


RESULT 14
US-09-305-924-1
; Sequence 1, Application US/09305924A
; Publication No. US20030091579A1
; GENERAL INFORMATION:
```

```
;  APPLICANT: Jack G. Manns
;  APPLICANT: Stephen D. Acres
;  APPLICANT: Richard Harland
;  TITLE OF INVENTION: METHODS OF RAISING ANIMALS FOR MEAT PRODUCTION
;  FILE REFERENCE: 9001-0048
;  CURRENT APPLICATION NUMBER: US/09/305,924A
;  CURRENT FILING DATE: 1999-05-05
;  EARLIER APPLICATION NUMBER: US 60/084,217
;  EARLIER FILING DATE: 1998-05-05
;  NUMBER OF SEQ ID NOS: 14
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: GnRH
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (1)
;   OTHER INFORMATION: Xaa is pyroglutamic acid
US-09-305-924-1

  Query Match             92.1%;  Score 58;  DB 11;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.0048;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 HWSYGLRPG 10
              |||||||||
Db          2 HWSYGLRPG 10


RESULT 15
US-10-311-688-3
; Sequence 3, Application US/10311688
; Publication No. US20030191164A1
; GENERAL INFORMATION:
;  APPLICANT: Yamanouchi Pharmaceutical Co., Ltd.
;  TITLE OF INVENTION: PROPANE-1,3-DIONE DERIVATIVE
;  FILE REFERENCE: Q73475
;  CURRENT APPLICATION NUMBER: US/10/311,688
;  CURRENT FILING DATE:  2002-12-19
;  PRIOR APPLICATION NUMBER: JPA P. 2000-204425
;  PRIOR FILING DATE: 2000-07-05
;  PRIOR APPLICATION NUMBER: JPA P. 2001-153372
;  PRIOR FILING DATE: 2001-05-23
;  PRIOR APPLICATION NUMBER: PCT/JP01/05813
;  PRIOR FILING DATE: 2001-05-23
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 3
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Labeled Tyr with 125I and substituted with D form of Trp
US-10-311-688-3

  Query Match             87.3%;  Score 55;  DB 12;  Length 10;
  Best Local Similarity   90.0%;  Pred. No. 0.015;
  Matches    9;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 EHWSYGLRPG 10
              ||||| ||||
Db          1 EHWSYWLRPG 10


Search completed: November 17, 2003, 18:28:17
Job time : 29 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:27:39 ; Search time 13.5 Seconds
(without alignments)
64.112 Million cell updates/sec

Title: US-09-462-089-2
Perfect score: 58
Sequence: 1 HWSYGLRPG 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283308 seqs, 96168682 residues

Total number of hits satisfying chosen parameters: 789

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	21	36.2	9	2	S39437	D-amino-acid oxida
2	19	32.8	7	2	A60139	fatty-acid synthas
3	19	32.8	8	2	D47393	neuropeptide calla
4	18	31.0	9	2	PT0268	Ig heavy chain CRD
5	18	31.0	9	2	PT0299	Ig heavy chain CRD
6	17	29.3	8	2	PH1618	Ig H chain V-D-J r
7	17	29.3	9	2	S07205	litorin 2-Glu - Au
8	17	29.3	9	2	S07204	litorin I - Austra
9	17	29.3	9	2	D58503	translation elonga
10	17	29.3	9	2	PT0238	Ig heavy chain CRD
11	17	29.3	9	2	PH1591	Ig H chain V-D-J r
12	17	29.3	9	2	G41946	T-cell receptor ga
13	16	27.6	5	2	PT0281	Ig heavy chain CRD
14	16	27.6	7	4	I55382	hypothetical pepti
15	16	27.6	9	2	S07241	litorin - Rohde's
16	15	25.9	7	2	A33098	244K exoantigen -
17	15	25.9	9	2	QDRB	delta sleep-induci
18	15	25.9	9	2	A11497	transaldolase (EC
19	15	25.9	9	2	S36850	Ig heavy chain V r
20	15	25.9	9	2	I49406	bone gla protein -
21	14	24.1	5	2	JN0862	peptidyl-dipeptida
22	14	24.1	6	4	I79564	hypothetical TCL3
23	14	24.1	7	2	PT0581	T-cell receptor be
24	14	24.1	8	2	S19288	acylase - Kluyvera
25	14	24.1	8	2	S16324	hypothetical prote
26	14	24.1	8	2	S11078	glucose-6-phosphat
27	14	24.1	8	2	JS0318	leucokinin VIII -
28	14	24.1	8	2	PT0311	Ig heavy chain CRD
29	14	24.1	9	2	PT0288	Ig heavy chain CRD
30	14	24.1	9	2	S66636	alpha-2-macroglobu
31	13	22.4	4	2	A34626	RPCH-related neuro
32	13	22.4	4	2	PT0240	Ig heavy chain CRD
33	13	22.4	4	2	S47552	ubiquitin - rat
34	13	22.4	5	2	PQ0689	photosystem I 10.4
35	13	22.4	5	2	B61445	Leu-enkephalin - b
36	13	22.4	5	2	A61445	Met-enkephalin - b
37	13	22.4	5	2	S53595	hypothetical prote
38	13	22.4	5	2	PT0572	T-cell receptor be
39	13	22.4	5	2	PT0714	T-cell receptor be
40	13	22.4	6	2	A35890	RNA-directed DNA p
41	13	22.4	6	2	A61049	halo-toxin - Pseud
42	13	22.4	6	2	PT0715	T-cell receptor be
43	13	22.4	6	4	A35039	hypothetical colla
44	13	22.4	7	2	A60224	Met-enkephalin-Arg
45	13	22.4	7	2	A44428	platelet aggregati

ALIGNMENTS

RESULT 1
S39437
D-amino-acid oxidase (EC 1.4.3.3) - Trigonopsis variabilis (fragment)
C;Species: Trigonopsis variabilis
C;Date: 19-Mar-1997 #sequence_revision 05-Dec-1997 #text_change 07-May-1999
C;Accession: S39437
R;Schraeder, T.; Andreesen, J.R.
Eur. J. Biochem. 218, 735-744, 1993
A;Title: Evidence for the functional importance of Cys298 in D-amino acid oxidase from T
A;Reference number: S39437; MUID:94094869; PMID:7903639
A;Accession: S39437
A;Molecule type: protein
A;Residues: 1-9 <SCH>
A;Experimental source: CBS 4095
C;Function:
A;Description: oxidoreductase; catalyzes the oxidation of D-amino acids to their corresp
A;Note: reoxidation of the enzyme by molecular oxygen is accompanied by the release of h
C;Keywords: FAD; oxidoreductase

Query Match 36.2%; Score 21; DB 2; Length 9;
Best Local Similarity 80.0%; Pred. No. 2.8e+05;
Matches 4; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 5 GLRPG 9
| |||
Db 3 GHRPG 7

RESULT 2
A60139
fatty-acid synthase (EC 2.3.1.85) - rabbit (fragment)
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 26-May-2000
C;Accession: A60139
R;Hardie, D.G.; Dewart, K.B.; Aitken, A.; McCarthy, A.D.
Biochim. Biophys. Acta 828, 380-382, 1985
A;Title: Amino acid sequence around the reactive serine residue of the thioesterase dom
A;Reference number: A60139; MUID:85175165; PMID:3921056
A;Accession: A60139
A;Molecule type: protein
A;Residues: 1-7 <HAR>
C;Superfamily: rat fatty-acid synthase; 3-oxoacyl-[acyl-carrier-protein] synthase I hom
ydrolase homology; short-chain alcohol dehydrogenase homology; [acyl-carrier-protein] S
C;Keywords: acyltransferase; carrier protein; coenzyme A; homodimer; multifunctional en
F;5/Active site: Ser (of oleoyl-[acyl-carrier-protein] hydrolase) #status experimental

Query Match 32.8%; Score 19; DB 2; Length 7;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 2 WSYG 5
:|||

```
Db          4 YSYG 7


RESULT 3
D47393
neuropeptide callatostatin 4 - bluebottle fly (Calliphora vomitoria)
C;Species: Calliphora vomitoria
C;Date: 16-Feb-1994 #sequence_revision 18-Nov-1994 #text_change 28-Apr-1995
C;Accession: D47393
R;Duve, H.; Johnsen, A.H.; Scott, A.G.; Yu, C.G.; Yagi, K.J.; Tobe, S.S.; Thorpe, A.
Proc. Natl. Acad. Sci. U.S.A. 90, 2456-2460, 1993
A;Title: Callatostatins: neuropeptides from the blowfly Calliphora vomitoria with sequen
A;Reference number: A47393; MUID:93211980; PMID:8460157
A;Accession: D47393
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-8 <DUV>
A;Experimental source: thoracic ganglia
A;Note: sequence extracted from NCBI backbone (NCBIP:128479)

  Query Match             32.8%;  Score 19;  DB 2;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WSYGL 6
              :|:||
Db          4 YSFGL 8


RESULT 4
PT0268
Ig heavy chain CRD3 region (clone 3-94B) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0268
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0268
A;Molecule type: DNA
A;Residues: 1-9 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

  Query Match             31.0%;  Score 18;  DB 2;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          7 RPG 9
              |||
Db          2 RPG 4


RESULT 5
PT0299
Ig heavy chain CRD3 region (clone 5-103B) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0299
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0299
A;Molecule type: DNA
A;Residues: 1-9 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

  Query Match             31.0%;  Score 18;  DB 2;  Length 9;
  Best Local Similarity   66.7%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 WSY 4
              | |
Db          4 WDY 6


RESULT 6
PH1618
Ig H chain V-D-J region (clone B-less 33) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change 17-Mar-1999
C;Accession: PH1618
R;Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
A;Title: Molecular characterization of transgene-induced immunodeficiency in B-less mice
A;Reference number: PH1580; MUID:93301609; PMID:8315387
A;Accession: PH1618
A;Molecule type: DNA
A;Residues: 1-8 <LEV>
A;Experimental source: bone marrow pre-B lymphocyte
C;Keywords: immunoglobulin

  Query Match             29.3%;  Score 17;  DB 2;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          4 YGL 6
              |||
Db          6 YGL 8


RESULT 7
S07205
litorin 2-Glu - Australian tree frog (Litoria aurea)
C;Species: Litoria aurea
C;Date: 12-Feb-1993 #sequence_revision 12-Mar-1993 #text_change 18-Aug-2000
C;Accession: S07205
R;Anastasi, A.; Montecucchi, P.; Angelucci, F.; Erspamer, V.; Endean, R.
Experientia 33, 1289, 1977
A;Title: Glu(OMe)(2)-litorin, the second bombesin-like peptide occurring in methanol ext
A;Reference number: S07205; MUID:78003546; PMID:908397
A;Accession: S07205
A;Molecule type: protein
A;Residues: 1-9 <ANA>
C;Superfamily: gastrin-releasing peptide
C;Keywords: amidated carboxyl end; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;9/Modified site: amidated carboxyl end (Met) #status experimental

  Query Match             29.3%;  Score 17;  DB 2;  Length 9;
  Best Local Similarity   50.0%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 WSYG 5
              |: |
Db          3 WAVG 6


RESULT 8
S07204
litorin I - Australian tree frog (Litoria aurea)
C;Species: Litoria aurea
C;Date: 12-Feb-1993 #sequence_revision 12-Mar-1993 #text_change 18-Aug-2000
C;Accession: S07204
R;Anastasi, A.; Erspamer, V.; Endean, R.
Experientia 31, 510-511, 1975
A;Title: Aminoacid composition and sequence of litorin, a bombesin-like nonapeptide from
A;Reference number: S07204; MUID:75187011; PMID:1140241
A;Accession: S07204
A;Molecule type: protein
A;Residues: 1-9 <ANA>
C;Superfamily: gastrin-releasing peptide
C;Keywords: amidated carboxyl end; neuropeptide; pyroglutamic acid
```

```
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;9/Modified site: amidated carboxyl end (Met) #status experimental

  Query Match             29.3%;  Score 17;  DB 2;  Length 9;
  Best Local Similarity   50.0%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 WSYG 5
              |: |
Db          3 WAVG 6


RESULT 9
D58503
translation elongation factor EF-Tu - unidentified bacterium (fragment)
C;Species: unidentified bacterium
C;Date: 07-Feb-1997 #sequence_revision 07-Feb-1997 #text_change 28-May-1999
C;Accession: D58503
R;Binette, J.P.; Binette, M.B.
submitted to the Protein Sequence Database, October 1996
A;Description: The proteins of kidney and gallbladder stones.
A;Reference number: A58501
A;Accession: D58503
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-9 <BIN>
A;Experimental source: human bile and stones
C;Superfamily: translation elongation factor Tu; translation elongation factor Tu homolo
C;Keywords: GTP binding

  Query Match             29.3%;  Score 17;  DB 2;  Length 9;
  Best Local Similarity   75.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          5 GLRP 8
              | ||
Db          1 GYRP 4


RESULT 10
PT0238
Ig heavy chain CRD3 region (clone 2-94B) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0238
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0238
A;Molecule type: DNA
A;Residues: 1-9 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

  Query Match             29.3%;  Score 17;  DB 2;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 SYG 5
              |||
Db          7 SYG 9


RESULT 11
PH1591
Ig H chain V-D-J region (wild-type clone 142) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change 17-Mar-1999
C;Accession: PH1591
R;Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
A;Title: Molecular characterization of transgene-induced immunodeficiency in B-less mice
A;Reference number: PH1580; MUID:93301609; PMID:8315387
A;Accession: PH1591
A;Molecule type: DNA
A;Residues: 1-9 <LEV>
A;Experimental source: bone marrow pre-B lymphocyte
C;Keywords: immunoglobulin

  Query Match             29.3%;  Score 17;  DB 2;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          4 YGL 6
              |||
Db          7 YGL 9


RESULT 12
G41946
T-cell receptor gamma chain (2t.23) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 07-May-1999
C;Accession: G41946
R;Whetsell, M.; Mosley, R.L.; Whetsell, L.; Schaefer, F.V.; Miller, K.S.; Klein, J.R.
Mol. Cell. Biol. 11, 5902-5909, 1991
A;Title: Rearrangement and junctional-site sequence analyses of T-cell receptor gamma ge
A;Reference number: A41946; MUID:92049316; PMID:1658619
A;Accession: G41946
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 1-9 <WHE>
C;Keywords: T-cell receptor

  Query Match             29.3%;  Score 17;  DB 2;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 SYG 5
              |||
Db          1 SYG 3


RESULT 13
PT0281
Ig heavy chain CRD3 region (clone 4-91C) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0281
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0281
A;Molecule type: DNA
A;Residues: 1-5 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

  Query Match             27.6%;  Score 16;  DB 2;  Length 5;
  Best Local Similarity   66.7%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HWS 3
              :||
Db          3 NWS 5


RESULT 14
I55382
hypothetical peptide PAI1 promoter region - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 16-Apr-1999 #sequence_revision 16-Apr-1999 #text_change 20-Apr-2000
C;Accession: I55382
R;Dawson, S.J.; Wiman, B.; Hamsten, A.; Green, F.; Humphries, S.; Henney, A.M.
```

J. Biol. Chem. 268, 10739-10745, 1993
A;Title: The two allele sequences of a common polymorphism in the promoter of the plasmi
A;Reference number: I55382; MUID:93266509; PMID:8388372
A;Accession: I55382
A;Status: translation not shown; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-7 <DAW>
A;Cross-references: GB:M91557; NID:g190020; PIDN:AAA60110.1; PID:g190021
C;Comment: This is the hypothetical translation of a sequence from the PAI1 gene promote
C;Genetics:
A;Gene: GDB:PAI1
A;Cross-references: GDB:120297; OMIM:173360
A;Map position: 7q21.3-7q22

  Query Match 27.6%; Score 16; DB 4; Length 7;
  Best Local Similarity 50.0%; Pred. No. 2.8e+05;
  Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 2 WSYG 5
 |: |
Db 1 WTRG 4

RESULT 15
S07241
litorin - Rohde's leaf frog
C;Species: Phyllomedusa rohdei (Rohde's leaf frog)
C;Date: 12-Feb-1993 #sequence_revision 12-Mar-1993 #text_change 18-Aug-2000
C;Accession: S07241
R;Barra, D.; Falconieri Erspamer, G.; Simmaco, M.; Bossa, F.; Melchiorri, P.; Erspamer,
FEBS Lett. 182, 53-56, 1985
A;Title: Rohdei-litorin: a new peptide from the skin of Phyllomedusa rohdei.
A;Reference number: S07241; MUID:85127560; PMID:3838283
A;Accession: S07241
A;Molecule type: protein
A;Residues: 1-9 <BAR>
C;Superfamily: gastrin-releasing peptide
C;Keywords: amidated carboxyl end; blocked amino end; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;9/Modified site: amidated carboxyl end (Met) #status experimental

  Query Match 27.6%; Score 16; DB 2; Length 9;
  Best Local Similarity 50.0%; Pred. No. 2.8e+05;
  Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 2 WSYG 5
 |: |
Db 3 WATG 6

Search completed: November 17, 2003, 18:31:57
Job time : 14 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:24:14 ; Search time 10 Seconds
(without alignments)
42.324 Million cell updates/sec

Title: US-09-462-089-2
Perfect score: 58
Sequence: 1 HWSYGLRPG 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 127863 seqs, 47026705 residues

Total number of hits satisfying chosen parameters: 251

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_41:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	24	41.4	8	1	ALL1_CYDPO	P82152 cydia pomon
2	23	39.7	8	1	AL16_CARMA	P81819 carcinus ma
3	19	32.8	5	1	AL14_CARMA	P81817 carcinus ma
4	19	32.8	8	1	AL15_CARMA	P81818 carcinus ma
5	19	32.8	8	1	AL17_CARMA	P81820 carcinus ma
6	19	32.8	8	1	AL18_CARMA	P81821 carcinus ma
7	19	32.8	8	1	ALL3_CYDPO	P82154 cydia pomon
8	19	32.8	8	1	ALL4_CALVO	P41840 calliphora
9	19	32.8	8	1	ALL4_CYDPO	P82155 cydia pomon
10	19	32.8	9	1	TKC1_CALVO	P41517 calliphora
11	19	32.8	9	1	TKL1_LOCMI	P16223 locusta mig
12	17	29.3	9	1	LITO_LITAU	P08945 litoria aur
13	17	29.3	9	1	UPA6_HUMAN	P30092 homo sapien
14	16	27.6	7	1	ALL2_CARMA	P81805 carcinus ma
15	16	27.6	7	1	ALL3_CARMA	P81806 carcinus ma
16	16	27.6	7	1	ALL4_CARMA	P81807 carcinus ma
17	16	27.6	7	1	ALL5_CARMA	P81808 carcinus ma
18	16	27.6	8	1	AL12_CARMA	P81815 carcinus ma
19	16	27.6	8	1	ALL6_CYDPO	P82157 cydia pomon
20	16	27.6	8	1	ALL7_CARMA	P81809 carcinus ma
21	16	27.6	8	1	ALL8_CARMA	P81811 carcinus ma
22	16	27.6	8	1	ALL9_CARMA	P81812 carcinus ma
23	16	27.6	9	1	AL10_CARMA	P81813 carcinus ma
24	16	27.6	9	1	AL11_CARMA	P81814 carcinus ma
25	16	27.6	9	1	LITR_PHYRO	P08946 phyllomedus
26	15	25.9	7	1	ALL7_CYDPO	P82158 cydia pomon
27	15	25.9	7	1	UN06_PINPS	P81675 pinus pinas
28	15	25.9	8	1	ALL5_CYDPO	P82156 cydia pomon
29	15	25.9	9	1	BS43_SERPL	P83375 serratia pl
30	15	25.9	9	1	DSIP_RABIT	P01158 oryctolagus
31	15	25.9	9	1	FAR9_ASCSU	P43172 ascaris suu
32	15	25.9	9	1	NEF_HV1Z8	P12481 human immun
33	15	25.9	9	1	TAL3_PICJA	P17441 pichia jadi
34	14	24.1	8	1	LCK8_LEUMA	P19990 leucophaea
35	13	22.4	8	1	ACI_THUAL	P18691 thunnus alb
36	13	22.4	8	1	AKH_TABAT	P14595 tabanus atr
37	13	22.4	8	1	ALL5_CALVO	P41841 calliphora
38	13	22.4	8	1	LCK2_LEUMA	P21141 leucophaea
39	13	22.4	8	1	RPCH_PANBO	P08939 pandalus bo
40	13	22.4	8	1	UF06_MOUSE	P38644 mus musculu
41	13	22.4	8	1	UPAA_HUMAN	P30096 homo sapien
42	13	22.4	8	1	VGLG_HSV2B	P81780 herpes simp
43	13	22.4	9	1	FAR5_CALVO	P41860 calliphora
44	13	22.4	9	1	KNL3_BOMVA	P83058 bombina var
45	13	22.4	9	1	NSK1_SARBU	P41492 sarcophaga

ALIGNMENTS

RESULT 1
ALL1_CYDPO
ID ALL1_CYDPO STANDARD; PRT; 8 AA.
AC P82152;
DT 30-MAY-2000 (Rel. 39, Created)
DT 30-MAY-2000 (Rel. 39, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE Cydiastatin 1.
OS Cydia pomonella (Codling moth).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
OC Tortricoidea; Tortricidae; Olethreutinae; Cydia.
OX NCBI_TaxID=82600;
RN [1]
RP SEQUENCE.
RC TISSUE=Larva;
RX MEDLINE=98054539; PubMed=9392829;
RA Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Winstanley D.,
RA Davey M., East P.D., Thorpe A.;
RT "Lepidopteran peptides of the allatostatin superfamily.";
RL Peptides 18:1301-1309(1997).
CC -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW Neuropeptide; Amidation.
FT MOD_RES 8 8 AMIDATION.
SQ SEQUENCE 8 AA; 934 MW; C82879C45B51F775 CRC64;

Query Match 41.4%; Score 24; DB 1; Length 8;
Best Local Similarity 50.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HWSYGL 6
|:::||
Db 3 HYNFGL 8

RESULT 2
AL16_CARMA
ID AL16_CARMA STANDARD; PRT; 8 AA.
AC P81819;
DT 30-MAY-2000 (Rel. 39, Created)
DT 30-MAY-2000 (Rel. 39, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE Carcinustatin 16.
OS Carcinus maenas (Common shore crab) (Green crab).
OC Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX NCBI_TaxID=6759;
RN [1]
RP SEQUENCE.
RC TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX MEDLINE=98121193; PubMed=9461295;
RA Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA Thorpe A.;
RT "Isolation and identification of multiple neuropeptides of the
RT allatostatin superfamily in the shore crab Carcinus maenas.";

```
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation; Multigene family.
FT   MOD_RES       8       8       AMIDATION.
SQ   SEQUENCE   8 AA;  813 MW;  7C286B45AB476878 CRC64;

  Query Match             39.7%;  Score 23;  DB 1;  Length 8;
  Best Local Similarity   80.0%;  Pred. No. 1.3e+05;
  Matches    4;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WSYGL 6
              :||||
Db          4 YSYGL 8


RESULT 3
AL14_CARMA
ID   AL14_CARMA     STANDARD;      PRT;     5 AA.
AC   P81817;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 14.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation; Multigene family.
FT   MOD_RES       5       5       AMIDATION (POTENTIAL).
SQ   SEQUENCE   5 AA;  586 MW;  672879D5AB300000 CRC64;

  Query Match             32.8%;  Score 19;  DB 1;  Length 5;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WSYGL 6
              :|:||
Db          1 YSFGL 5


RESULT 4
AL15_CARMA
ID   AL15_CARMA     STANDARD;      PRT;     8 AA.
AC   P81818;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 15.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation; Multigene family.
FT   MOD_RES       8       8       AMIDATION.
SQ   SEQUENCE   8 AA;  811 MW;  922879D5AB47687D CRC64;

  Query Match             32.8%;  Score 19;  DB 1;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WSYGL 6
              :|:||
Db          4 YSFGL 8


RESULT 5
AL17_CARMA
ID   AL17_CARMA     STANDARD;      PRT;     8 AA.
AC   P81820;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 17.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation; Multigene family.
FT   MOD_RES       8       8       AMIDATION (POTENTIAL).
SQ   SEQUENCE   8 AA;  858 MW;  C82879D5AB46D865 CRC64;

  Query Match             32.8%;  Score 19;  DB 1;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WSYGL 6
              :|:||
Db          4 YSFGL 8


RESULT 6
AL18_CARMA
ID   AL18_CARMA     STANDARD;      PRT;     8 AA.
AC   P81821;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 18.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
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RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation; Multigene family.
FT   MOD_RES       8       8       AMIDATION (POTENTIAL).
SQ   SEQUENCE   8 AA;  919 MW;  C82879D5AB569AB5 CRC64;

  Query Match             32.8%;  Score 19;  DB 1;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WSYGL 6
              :|:||
Db          4 YSFGL 8


RESULT 7
ALL3_CYDPO
ID   ALL3_CYDPO     STANDARD;      PRT;     8 AA.
AC   P82154;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Cydiastatin 3.
OS   Cydia pomonella (Codling moth).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
OC   Tortricoidea; Tortricidae; Olethreutinae; Cydia.
OX   NCBI_TaxID=82600;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Larva;
RX   MEDLINE=98054539; PubMed=9392829;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Winstanley D.,
RA   Davey M., East P.D., Thorpe A.;
RT   "Lepidopteran peptides of the allatostatin superfamily.";
RL   Peptides 18:1301-1309(1997).
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation.
FT   MOD_RES       8       8       AMIDATION.
SQ   SEQUENCE   8 AA;  926 MW;  C82879D5AB477415 CRC64;

  Query Match             32.8%;  Score 19;  DB 1;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WSYGL 6
              :|:||
Db          4 YSFGL 8


RESULT 8
ALL4_CALVO
ID   ALL4_CALVO     STANDARD;      PRT;     8 AA.
AC   P41840;
DT   01-NOV-1995 (Rel. 32, Created)
DT   01-NOV-1995 (Rel. 32, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Callatostatin 4 (Leu-callatostatin 4).
OS   Calliphora vomitoria (Blue blowfly).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC   Calliphoridae; Calliphora.
OX   NCBI_TaxID=27454;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Thoracic ganglion;
RX   MEDLINE=93211980; PubMed=8460157;
RA   Duve H., Johnsen A.H., Scott A.G., Yu C.G., Yagi K.J., Tobe S.S.,
RA   Thorpe A.;
RT   "Callatostatins: neuropeptides from the blowfly Calliphora vomitoria
RT   with sequence homology to cockroach allatostatins.";
RL   Proc. Natl. Acad. Sci. U.S.A. 90:2456-2460(1993).
RN   [2]
RP   CHARACTERIZATION.
RX   MEDLINE=94291167; PubMed=8020069;
RA   Duve H., Thorpe A.;
RT   "Distribution and functional significance of Leu-callatostatins in
RT   the blowfly Calliphora vomitoria.";
RL   Cell Tissue Res. 276:367-379(1994).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR AND PLAY
CC       A ROLE IN THE INTEGRATION OF INFORMATION WITHIN THE BRAIN. MAY BE
CC       INVOLVED IN THE CONTROL OF VISCERAL MUSCLES DUE TO ITS ABILITY TO
CC       BEHAVE AS POTENT INHIBITORS OF PERISTALIC MOVEMENTS. MAY ALSO
CC       FULFILL A NEUROHORMONAL ROLE ON MUSCLES OF THE GUT AND HEART.
CC   -!- TISSUE SPECIFICITY: BRAIN, SUBOESOPHAGEAL GANGLION, RETROCEREBRAL
CC       COMPLEX, THORACICO-ABDOMINAL GANGLION, PERIPHERAL NEUROSECRETORY
CC       SYSTEM AND INTESTINE.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
DR   PIR; D47393; D47393.
KW   Neuropeptide; Amidation.
FT   MOD_RES       8       8       AMIDATION.
FT   UNSURE        1       1       OR N.
SQ   SEQUENCE   8 AA;  954 MW;  D32879D5AB47740A CRC64;

  Query Match             32.8%;  Score 19;  DB 1;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WSYGL 6
              :|:||
Db          4 YSFGL 8


RESULT 9
ALL4_CYDPO
ID   ALL4_CYDPO     STANDARD;      PRT;     8 AA.
AC   P82155;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Cydiastatin 4.
OS   Cydia pomonella (Codling moth).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
OC   Tortricoidea; Tortricidae; Olethreutinae; Cydia.
OX   NCBI_TaxID=82600;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Larva;
RX   MEDLINE=98054539; PubMed=9392829;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Winstanley D.,
RA   Davey M., East P.D., Thorpe A.;
RT   "Lepidopteran peptides of the allatostatin superfamily.";
RL   Peptides 18:1301-1309(1997).
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation.
FT   MOD_RES       8       8       AMIDATION.
SQ   SEQUENCE   8 AA;  910 MW;  922879D5AB47740D CRC64;

  Query Match             32.8%;  Score 19;  DB 1;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WSYGL 6
              :|:||
Db          4 YSFGL 8


RESULT 10
TKC1_CALVO
ID   TKC1_CALVO     STANDARD;      PRT;     9 AA.
AC   P41517;
DT   01-NOV-1995 (Rel. 32, Created)
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DT   01-NOV-1995 (Rel. 32, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Callitachykinin I.
OS   Calliphora vomitoria (Blue blowfly).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC   Calliphoridae; Calliphora.
OX   NCBI_TaxID=27454;
RN   [1]
RP   SEQUENCE, AND SYNTHESIS.
RX   MEDLINE=95075727; PubMed=7984492;
RA   Lundquist C.T., Clottens F.L., Holman G.M., Nichols R., Nachman R.J.,
RA   Naessel D.R.;
RT   "Callitachykinin I and II, two novel myotropic peptides isolated from
RT   the blowfly, Calliphora vomitoria, that have resemblances to
RT   tachykinins.";
RL   Peptides 15:761-768(1994).
CC   -!- FUNCTION: MYOACTIVE PEPTIDE.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: SOME SIMILARITY TO TACHYKININS.
KW   Tachykinin; Neuropeptide; Amidation.
FT   MOD_RES       9       9       AMIDATION.
SQ   SEQUENCE   9 AA;  981 MW;  2417C86B59CDC1B7 CRC64;

  Query Match             32.8%;  Score 19;  DB 1;  Length 9;
  Best Local Similarity   75.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          4 YGLR 7
              ||:|
Db          6 YGVR 9


RESULT 11
TKL1_LOCMI
ID   TKL1_LOCMI     STANDARD;      PRT;     9 AA.
AC   P16223;
DT   01-APR-1990 (Rel. 14, Created)
DT   01-APR-1990 (Rel. 14, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Locustatachykinin I (TK-I).
OS   Locusta migratoria (Migratory locust).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Orthopteroidea; Orthoptera; Caelifera; Acridomorpha;
OC   Acridoidea; Acrididae; Oedipodinae; Locusta.
OX   NCBI_TaxID=7004;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Brain;
RX   MEDLINE=90184489; PubMed=2311766;
RA   Schoofs L., Holman G.M., Hayes T.K., Nachman R.J., de Loof A.;
RT   "Locustatachykinin I and II, two novel insect neuropeptides with
RT   homology to peptides of the vertebrate tachykinin family.";
RL   FEBS Lett. 261:397-401(1990).
CC   -!- FUNCTION: MYOACTIVE PEPTIDE. STIMULATES THE CONTRACTION OF THE
CC       OVIDUCT AND FOREGUT.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: SOME SIMILARITY TO TACHYKININS.
KW   Tachykinin; Neuropeptide; Amidation.
FT   MOD_RES       9       9       AMIDATION.
SQ   SEQUENCE   9 AA;  939 MW;  2389C86B59C865A7 CRC64;

  Query Match             32.8%;  Score 19;  DB 1;  Length 9;
  Best Local Similarity   75.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          4 YGLR 7
              ||:|
Db          6 YGVR 9


RESULT 12
LITO_LITAU
ID   LITO_LITAU     STANDARD;      PRT;     9 AA.
AC   P08945;
DT   01-NOV-1988 (Rel. 09, Created)
DT   01-FEB-1994 (Rel. 28, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Litorin.
OS   Litoria aurea (Green and golden bell frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
OC   Pelodryadinae; Litoria.
OX   NCBI_TaxID=8371;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Skin secretion;
RX   MEDLINE=75187011; PubMed=1140241;
RA   Anastasi A., Erspamer V., Endean R.;
RT   "Aminoacid composition and sequence of litorin, a bombesin-like
RT   nonapeptide from the skin of the Australian leptodactylid frog
RT   Litoria aurea.";
RL   Experientia 31:510-511(1975).
RN   [2]
RP   SEQUENCE (METHYLATED VARIANT).
RC   TISSUE=Skin secretion;
RX   MEDLINE=78003546; PubMed=908397;
RA   Anastasi A., Montecucchi P.C., Angelucci F., Erspamer V., Endean R.;
RT   "Glu(OMe)3-litorin, the second bombesin-like peptide occurring in
RT   methanol extracts of the skin of the Australian frog Litoria aurea.";
RL   Experientia 33:1289-1289(1977).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Skin.
CC   -!- SIMILARITY: BELONGS TO THE BOMBESIN/NEUROMEDIN B/RANATENSIN
CC       FAMILY.
DR   PIR; S07204; S07204.
DR   InterPro; IPR000874; Bombesin.
DR   Pfam; PF02044; Bombesin; 1.
DR   PROSITE; PS00257; BOMBESIN; 1.
KW   Amphibian defense peptide; Bombesin family; Amidation; Methylation;
KW   Pyrrolidone carboxylic acid.
FT   MOD_RES       1       1       PYRROLIDONE CARBOXYLIC ACID.
FT   MOD_RES       2       2       METHYLATION (PARTIAL).
FT   MOD_RES       9       9       AMIDATION.
SQ   SEQUENCE   9 AA;  1103 MW;  D7CCC1E862CDC366 CRC64;

  Query Match             29.3%;  Score 17;  DB 1;  Length 9;
  Best Local Similarity   50.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 WSYG 5
              |: |
Db          3 WAVG 6


RESULT 13
UPA6_HUMAN
ID   UPA6_HUMAN     STANDARD;      PRT;     9 AA.
AC   P30092;
DT   01-APR-1993 (Rel. 25, Created)
DT   01-APR-1993 (Rel. 25, Last sequence update)
DT   16-OCT-2001 (Rel. 40, Last annotation update)
DE   Unknown protein from 2D-page of plasma (Spot 14) (Fragment).
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Plasma;
RX   MEDLINE=93092937; PubMed=1459097;
RA   Hughes G.J., Frutiger S., Paquet N., Ravier F., Pasquali C.,
RA   Sanchez J.-C., James R., Tissot J.-D., Bjellqvist B.,
RA   Hochstrasser D.F.;
RT   "Plasma protein map: an update by microsequencing.";
RL   Electrophoresis 13:707-714(1992).
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CC   -!- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN
CC       PROTEIN IS: 5, ITS MW IS: 48 kDa.
DR   SWISS-2DPAGE; P30092; HUMAN.
FT   NON_TER       1      1
FT   NON_TER       9      9
SQ   SEQUENCE   9 AA;  935 MW;  5282F2CAA8676447 CRC64;

  Query Match             29.3%;  Score 17;  DB 1;  Length 9;
  Best Local Similarity   75.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          6 LRPG 9
              | ||
Db          2 LNPG 5


RESULT 14
ALL2_CARMA
ID   ALL2_CARMA     STANDARD;      PRT;     7 AA.
AC   P81805;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 2.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation; Multigene family.
FT   MOD_RES       7      7       AMIDATION (POTENTIAL).
SQ   SEQUENCE   7 AA;  770 MW;  672879CDCB5DDB70 CRC64;

  Query Match             27.6%;  Score 16;  DB 1;  Length 7;
  Best Local Similarity   40.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WSYGL 6
              :::||
Db          3 YAFGL 7


RESULT 15
ALL3_CARMA
ID   ALL3_CARMA     STANDARD;      PRT;     7 AA.
AC   P81806;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 3.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Multigene family.
SQ   SEQUENCE   7 AA;  796 MW;  672879CDCB476B70 CRC64;

  Query Match             27.6%;  Score 16;  DB 1;  Length 7;
  Best Local Similarity   40.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WSYGL 6
              :::||
Db          3 YAFGL 7


Search completed: November 17, 2003, 18:30:10
Job time : 10 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:27:09 ; Search time 27.5 Seconds
(without alignments)
84.454 Million cell updates/sec

Title: US-09-462-089-2
Perfect score: 58
Sequence: 1 HWSYGLRPG 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 830525 seqs, 258052604 residues

Total number of hits satisfying chosen parameters: 775

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SPTREMBL_23:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	19	32.8	8	6	O02831	O02831 oryctolagus
2	19	32.8	9	8	Q8W8X4	Q8w8x4 diadema mex
3	18	31.0	8	8	Q94VC1	Q94vc1 varanus rud
4	18	31.0	9	12	Q69473	Q69473 human herpe
5	17	29.3	8	13	P79940	P79940 xenopus lae
6	15	25.9	8	4	Q15888	Q15888 homo sapien
7	15	25.9	8	8	Q94PX5	Q94px5 felis silve
8	15	25.9	8	8	Q94VB2	Q94vb2 varanus sal
9	15	25.9	8	8	Q94PX7	Q94px7 felis silve
10	15	25.9	8	8	Q94PX6	Q94px6 felis libyc
11	15	25.9	8	8	Q94VA7	Q94va7 varanus sal
12	15	25.9	8	8	Q94VB5	Q94vb5 varanus sal
13	15	25.9	8	11	P82598	P82598 rattus norv
14	15	25.9	8	12	Q64971	Q64971 alfalfa mos
15	15	25.9	9	4	Q9BYF9	Q9byf9 homo sapien
16	15	25.9	9	5	Q9TWV0	Q9twv0 anthopleura
17	15	25.9	9	8	Q94VC6	Q94vc6 varanus pil
18	15	25.9	9	11	Q62530	Q62530 mus spretus
19	15	25.9	9	12	Q65711	Q65711 berne virus
20	15	25.9	9	13	Q9PRJ4	Q9prj4 lepisosteus
21	14.5	25.0	8	2	O85406	O85406 coxiella bu
22	13.5	23.3	8	13	Q98TU5	Q98tu5 xenopus lae
23	13	22.4	7	10	O49223	O49223 glycine max
24	13	22.4	8	2	O09258	O09258 synechococc
25	13	22.4	8	2	Q56140	Q56140 streptococc
26	13	22.4	8	2	O52062	O52062 bacillus me
27	13	22.4	8	4	Q15901	Q15901 homo sapien
28	13	22.4	8	5	O02032	O02032 lytechinus
29	13	22.4	8	6	Q9TT78	Q9tt78 canis famil
30	13	22.4	8	6	Q9XSY1	Q9xsy1 canis famil
31	13	22.4	8	7	Q95213	Q95213 oryctolagus
32	13	22.4	8	10	Q8L802	Q81802 zea mays (m
33	13	22.4	8	13	P82079	P82079 limnodynast
34	13	22.4	9	2	Q99193	Q99193 pseudomonas
35	13	22.4	9	7	Q31415	Q31415 gallus gall
36	13	22.4	9	8	Q94NB1	Q94nb1 microcebus
37	13	22.4	9	8	Q94NB2	Q94nb2 microcebus
38	13	22.4	9	8	Q94NA9	Q94na9 daubentonia
39	13	22.4	9	8	Q94XE6	Q94xe6 tectocoris
40	13	22.4	9	8	Q94NB0	Q94nb0 microcebus
41	13	22.4	9	15	O12096	O12096 caprine art
42	13	22.4	9	15	O12100	O12100 caprine art
43	13	22.4	9	15	O12102	O12102 caprine art
44	13	22.4	9	15	O12098	O12098 caprine art
45	13	22.4	9	15	O12104	O12104 caprine art

ALIGNMENTS

RESULT 1
O02831
ID O02831 PRELIMINARY; PRT; 8 AA.
AC O02831;
DT 01-JUL-1997 (TrEMBLrel. 04, Created)
DT 01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
DT 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE Pro alpha 1 type III collagen protein (Fragment).
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=96377339; PubMed=8783186;
RA Metsaranta M., Kujala U.M., Pelliniemi L., Osterman H., Aho H.,
RA Vuorio E.;
RT "Evidence for insufficient chondrocytic differentiation during repair
RT of full-thickness defects of articular cartilage.";
RL Matrix Biol. 15:39-47(1996).
DR EMBL; S83371; AAD14433.1; -.
KW Collagen.
FT NON_TER 1 1
SQ SEQUENCE 8 AA; 1028 MW; B859C7272EA77371 CRC64;

Query Match 32.8%; Score 19; DB 6; Length 8;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HW 2
||
Db 1 HW 2

RESULT 2
Q8W8X4
ID Q8W8X4 PRELIMINARY; PRT; 9 AA.
AC Q8W8X4;
DT 01-MAR-2002 (TrEMBLrel. 20, Created)

```
DT   01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT   01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DE   Cytochrome oxidase subunit II (Fragment).
GN   COII.
OS   Diadema mexicanum.
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Echinozoa;
OC   Echinoidea; Euechinoidea; Diadematacea; Diadematoida; Diadematidae;
OC   Diadema.
OX   NCBI_TaxID=105359;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=CC70, and CC117;
RX   MEDLINE=21323357; PubMed=11430656;
RA   Lessios H.A., Kessing B.D., Pearse J.S.;
RT   "Population structure and speciation in tropical seas: global
RT   phylogeography of the sea urchin Diadema.";
RL   Evolution 55:955-975(2001).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=CC70, and CC117;
RX   MEDLINE=21561594; PubMed=11703875;
RA   Lessios H.A., Garrido M.J., Kessing B.D.;
RT   "Demographic history of Diadema antillarum, a keystone herbivore on
RT   Caribbean reefs.";
RL   Proc. R. Soc. Lond., B, Biol. Sci. 268:2347-2353(2001).
DR   EMBL; AY012920; AAL33843.1; -.
DR   EMBL; AY012921; AAL33844.1; -.
KW   Mitochondrion.
FT   NON_TER       1      1
SQ   SEQUENCE   9 AA;  1174 MW;  2B73173B46DDC2D3 CRC64;

  Query Match             32.8%;  Score 19;  DB 8;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HW 2
              ||
Db          1 HW 2


RESULT 3
Q94VC1
ID   Q94VC1      PRELIMINARY;      PRT;     8 AA.
AC   Q94VC1;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit I (Fragment).
GN   COI.
OS   Varanus rudicollis.
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX   NCBI_TaxID=169851;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Ast J.C.;
RT   "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL   Cladistics 17:0-0(2001).
DR   EMBL; AF407521; AAL10116.1; -.
KW   Mitochondrion.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  1053 MW;  FE2729D5A36411A6 CRC64;

  Query Match             31.0%;  Score 18;  DB 8;  Length 8;
  Best Local Similarity   66.7%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WSY 4
              ||:
Db          4 WSF 6


RESULT 4
Q69473
ID   Q69473      PRELIMINARY;      PRT;     9 AA.
AC   Q69473;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DE   Immediate-early transactivator 110 (Fragment).
GN   ICP0.
OS   Human herpesvirus 1.
OC   Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
OC   Alphaherpesvirinae; Simplexvirus.
OX   NCBI_TaxID=10298;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=MP;
RX   PubMed=11725047;
RA   Chang Y., Jeang K., Lietman T., Hayward G.S.;
RT   "Structural Organization of the Spliced Immediate-Early Gene Complex
RT   that Encodes the Major Acidic Nuclear (IE1) and Transactivator (IE2)
RT   Proteins of African Green Monkey Cytomegalovirus.";
RL   J. Biomed. Sci. 2:105-130(1995).
DR   EMBL; U18080; AAA75442.1; -.
FT   NON_TER       1      1
FT   NON_TER       9      9
SQ   SEQUENCE   9 AA;  1029 MW;  797BB867740DDB04 CRC64;

  Query Match             31.0%;  Score 18;  DB 12;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          7 RPG 9
              |||
Db          5 RPG 7


RESULT 5
P79940
ID   P79940      PRELIMINARY;      PRT;     8 AA.
AC   P79940;
DT   01-MAY-1997 (TrEMBLrel. 03, Created)
DT   01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   XMeis1-4 protein (Fragment).
OS   Xenopus laevis (African clawed frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
OC   Xenopodinae; Xenopus.
OX   NCBI_TaxID=8355;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=97202105; PubMed=9049632;
RA   Steelman S., Moskow J.J., Muzynski K., North C., Druck T.,
RA   Montgomery J.C., Huebner K., Daar I.O., Buchberg A.M.;
RT   "Identification of a conserved family of Meis1-related homeobox
RT   genes.";
RL   Genome Res. 7:142-156(1997).
DR   EMBL; U68389; AAB19199.1; -.
DR   TRANSFAC; T03410; -.
FT   NON_TER       1      1
SQ   SEQUENCE   8 AA;  1187 MW;  278B51F37B11F40B CRC64;

  Query Match             29.3%;  Score 17;  DB 13;  Length 8;
  Best Local Similarity   66.7%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 WSY 4
              | |
Db          5 WHY 7


RESULT 6
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Q15888
ID   Q15888      PRELIMINARY;      PRT;     8 AA.
AC   Q15888;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   (Clone XP15H8A) (Fragment).
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Placenta;
RA   Lee C.-C., Yazdani A., Wehnert M., Bailey J., Couch L., Xiong M.,
RA   Coolbaugh M.I., Chinault C.A., Baldini A., Lindsay E.A., Zhao Z.-Y.,
RA   Caskey C.T.H.;
RT   "Isolation of chromosome-specific genes by reciprocal probing of
RT   arrayed cDNAs and cosmid libraries.";
RL   Hum. Mol. Genet. 0:0-0(1995).
DR   EMBL; L32069; AAA73878.1; -.
FT   NON_TER       1      1
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  1068 MW;  0315A37EAB5B0763 CRC64;

  Query Match             25.9%;  Score 15;  DB 4;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WS 3
              ||
Db          6 WS 7


RESULT 7
Q94PX5
ID   Q94PX5      PRELIMINARY;      PRT;     8 AA.
AC   Q94PX5;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit II (Fragment).
GN   COII.
OS   Felis silvestris (Wild cat).
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX   NCBI_TaxID=9683;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=66, 71, 75, 90, 1, and 2;
RA   Randi E., Pierpaoli M., Beaumont M., Ragni B., Sforzi A.;
RT   "Genetic identification of wild and domestic cats (Felis silvestris),
RT   and their hybrids using Bayesian clustering methods.";
RL   Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AJ409136; CAC41051.1; -.
DR   EMBL; AJ409137; CAC41054.1; -.
DR   EMBL; AJ409138; CAC41057.1; -.
DR   EMBL; AJ409139; CAC41060.1; -.
DR   EMBL; AJ409141; CAC41066.1; -.
DR   EMBL; AJ409143; CAC41072.1; -.
KW   Mitochondrion.
FT   NON_TER       1      1
SQ   SEQUENCE   8 AA;  951 MW;  262685BDC5A3733B CRC64;

  Query Match             25.9%;  Score 15;  DB 8;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WS 3
              ||
Db          3 WS 4


RESULT 8
Q94VB2
ID   Q94VB2      PRELIMINARY;      PRT;     8 AA.
AC   Q94VB2;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit I (Fragment).
GN   COI.
OS   Varanus salvator togianus.
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX   NCBI_TaxID=169832;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Ast J.C.;
RT   "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL   Cladistics 17:0-0(2001).
DR   EMBL; AF407524; AAL10125.1; -.
KW   Mitochondrion.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  992 MW;  EFC775A5A36411A6 CRC64;

  Query Match             25.9%;  Score 15;  DB 8;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WS 3
              ||
Db          4 WS 5


RESULT 9
Q94PX7
ID   Q94PX7      PRELIMINARY;      PRT;     8 AA.
AC   Q94PX7;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit II (Fragment).
GN   COII.
OS   Felis silvestris catus (Cat).
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX   NCBI_TaxID=9685;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=1, 2, 7, 12, 16, 17, and 110;
RA   Randi E., Pierpaoli M., Beaumont M., Ragni B., Sforzi A.;
RT   "Genetic identification of wild and domestic cats (Felis silvestris),
RT   and their hybrids using Bayesian clustering methods.";
RL   Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AJ409128; CAC41027.1; -.
DR   EMBL; AJ409129; CAC41030.1; -.
DR   EMBL; AJ409130; CAC41033.1; -.
DR   EMBL; AJ409131; CAC41036.1; -.
DR   EMBL; AJ409132; CAC41039.1; -.
DR   EMBL; AJ409133; CAC41042.1; -.
DR   EMBL; AJ409134; CAC41045.1; -.
KW   Mitochondrion.
FT   NON_TER       1      1
SQ   SEQUENCE   8 AA;  951 MW;  262685BDC5A3733B CRC64;

  Query Match             25.9%;  Score 15;  DB 8;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WS 3
              ||
Db          3 WS 4
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RESULT 10
Q94PX6
ID   Q94PX6      PRELIMINARY;      PRT;     8 AA.
AC   Q94PX6;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit II (Fragment).
GN   COII.
OS   Felis libyca.
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX   NCBI_TaxID=61377;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=40, 1, 2, and 7;
RA   Randi E., Pierpaoli M., Beaumont M., Ragni B., Sforzi A.;
RT   "Genetic identification of wild and domestic cats (Felis silvestris),
RT   and their hybrids using Bayesian clustering methods.";
RL   Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AJ409135; CAC41048.1; -.
DR   EMBL; AJ409140; CAC41063.1; -.
DR   EMBL; AJ409142; CAC41069.1; -.
DR   EMBL; AJ409144; CAC41075.1; -.
KW   Mitochondrion.
FT   NON_TER       1      1
SQ   SEQUENCE   8 AA;  951 MW;  262685BDC5A3733B CRC64;

  Query Match             25.9%;  Score 15;  DB 8;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WS 3
               ||
Db          3 WS 4


RESULT 11
Q94VA7
ID   Q94VA7      PRELIMINARY;      PRT;     8 AA.
AC   Q94VA7;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit I (Fragment).
GN   COI.
OS   Varanus salvator salvator.
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX   NCBI_TaxID=169831;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Ast J.C.;
RT   "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL   Cladistics 17:0-0(2001).
DR   EMBL; AF407526; AAL10130.1; -.
KW   Mitochondrion.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  992 MW;  EFC775A5A36411A6 CRC64;

  Query Match             25.9%;  Score 15;  DB 8;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WS 3
               ||
Db          4 WS 5


RESULT 12
Q94VB5
ID   Q94VB5      PRELIMINARY;      PRT;     8 AA.
AC   Q94VB5;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit I (Fragment).
GN   COI.
OS   Varanus salvator cumingi.
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX   NCBI_TaxID=169830;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Ast J.C.;
RT   "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL   Cladistics 17:0-0(2001).
DR   EMBL; AF407523; AAL10122.1; -.
KW   Mitochondrion.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  992 MW;  EFC775A5A36411A6 CRC64;

  Query Match             25.9%;  Score 15;  DB 8;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WS 3
               ||
Db          4 WS 5


RESULT 13
P82598
ID   P82598      PRELIMINARY;      PRT;     8 AA.
AC   P82598;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT   01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
DE   38kDa non-arginase growth inhibitory factor (NAGIF)(Fragment).
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE.
RC   STRAIN=Sprague-Dawley; TISSUE=Liver;
RX   MEDLINE=20198203; PubMed=10731662;
RA   Kim K.-Y., Choi I., Kim S.-S.;
RT   "Purification and characterization of a novel inhibitor of the
RT   proliferation of hepatic stellate cells.";
RL   J. Biochem. 127:23-27(2000).
CC   -!- FUNCTION: MAY ACT AS A NEGATIVE EFFECTOR IN THE REGULATION OF THE
CC       HEPATIC STELLATE CELLS (HSC). ALSO INHIBITS THE GROWTH OF BOVINE
CC       ENDOTHELIAL CELLS AND 3T6 FIBROBLASTS.
CC   -!- SIMILARITY: IDENTICAL TO THE 63-70 AA REGION OF THE RAT ZAG
CC       PROTEIN.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  914 MW;  80A3676B02D76B1D CRC64;

  Query Match             25.9%;  Score 15;  DB 11;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WS 3
               ||
Db          7 WS 8


RESULT 14
Q64971
ID   Q64971      PRELIMINARY;      PRT;     8 AA.
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AC   Q64971;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Putative ORF (Fragment).
OS   Alfalfa mosaic virus.
OC   Viruses; ssRNA positive-strand viruses, no DNA stage; Bromoviridae;
OC   Alfamovirus.
OX   NCBI_TaxID=12321;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=81124289; PubMed=6927843;
RA   Koper-Zwarthoff E.C., Brederode F.T.M., Veeneman G., van Boom J.H.,
RA   Bol J.F.;
RT   "Nucleotide sequences at the 5'-termini of the alfalfa mosaic virus
RT   RNAs and the intercistronic junction in RNA 3.";
RL   Nucleic Acids Res. 8:5635-5647(1980).
DR   EMBL; V00047; CAA23416.1; -.
FT   NON_TER       1       1
SQ   SEQUENCE   8 AA;  917 MW;  69D40B0775A365B8 CRC64;

  Query Match             25.9%;  Score 15;  DB 12;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WS 3
              ||
Db          3 WS 4


RESULT 15
Q9BYF9
ID   Q9BYF9      PRELIMINARY;      PRT;    9 AA.
AC   Q9BYF9;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytokeratin 19 (Fragment).
GN   K19.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=21539745; PubMed=11682035;
RA   Kagaya M., Kaneko S., Ohno H., Inamura K., Kobayashi K.;
RT   "Cloning and characterization of the 5'-flanking region of human
RT   cytokeratin 19 gene in human cholangiocarcinoma cell line.";
RL   J. Hepatol. 35:504-511(2001).
DR   EMBL; AB045973; BAB40770.1; -.
KW   Keratin.
FT   NON_TER       9       9
SQ   SEQUENCE   9 AA;  1122 MW;  9E9FC41B45AB45A1 CRC64;

  Query Match             25.9%;  Score 15;  DB 4;  Length 9;
  Best Local Similarity   60.0%;  Pred. No. 8.3e+05;
  Matches    3;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          3 SYGLR 7
              ||  |
Db          3 SYSYR 7


Search completed: November 17, 2003, 18:31:19
Job time : 29.5 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:23:44 ; Search time 34 Seconds
(without alignments)
42.016 Million cell updates/sec

Title: US-09-462-089-2
Perfect score: 58
Sequence: 1 HWSYGLRPG 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 179625

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	58	100.0	9	20	AAW94891	LHRH peptide fragm
2	58	100.0	9	21	AAB15363	Human LHRH peptide
3	58	100.0	9	21	AAB08104	Amino acid sequenc
4	58	100.0	9	22	AAB90979	Luteinising hormon
5	58	100.0	9	22	AAB59836	GnRH peptide. Pet
6	55	94.8	9	22	AAB90983	Luteinising hormon
7	52	89.7	8	24	ABP96550	Gonadotrophin rele
8	52	89.7	9	2	AAP10414	Luteinising Hormon
9	52	89.7	9	6	AAP50568	Sequence of gonado
10	52	89.7	9	17	AAR97760	Seabream gonadotro
11	52	89.7	9	22	AAB90972	Luteinising hormon
12	52	89.7	9	22	AAB90986	Luteinising hormon
13	52	89.7	9	24	ABP96548	Gonadotrophin rele
14	52	89.7	9	24	ABP96021	Gonadotrophin rele
15	52	89.7	9	24	AAE29840	Gonadotrophin rele
16	51	87.9	9	21	AAY89609	Core polypeptide f
17	51	87.9	9	22	AAU13563	DP178-like/DP107-l
18	50	86.2	8	6	AAP50692	Sequence of gonado
19	50	86.2	8	13	AAR26733	Immunogenic LHRH(3
20	50	86.2	8	20	AAW94892	LHRH peptide fragm
21	50	86.2	8	21	AAB15364	Human LHRH peptide
22	50	86.2	9	7	AAP60174	Sequence of lutein
23	50	86.2	9	16	AAR86849	Gonadotropin relea
24	50	86.2	9	22	AAB90974	Luteinising hormon
25	50	86.2	9	23	AAU76984	Luteinizing hormon
26	50	86.2	9	24	ABP96547	Gonadotrophin rele
27	47	81.0	9	20	AAW47843	pGlu-His-Trp-Ser-T
28	46	79.3	8	22	AAB90976	Luteinising hormon
29	46	79.3	9	2	AAP10155	Sequence of claudo
30	46	79.3	9	3	AAP20240	Ovulation control
31	46	79.3	9	6	AAP50837	LHRH agonist D-Ser
32	46	79.3	9	13	AAR26978	Reproduction stimu
33	46	79.3	9	16	AAR72681	Des-Gly10, [D-Ala6
34	46	79.3	9	17	AAW03070	Peptide for stimul
35	46	79.3	9	17	AAR89935	Luteinising hormon
36	46	79.3	9	17	AAR89932	Luteinising hormon
37	46	79.3	9	18	AAW24149	Synthetic peptide
38	46	79.3	9	19	AAW53560	Nonapeptide-ethyla
39	46	79.3	9	20	AAY50847	Water insoluble li
40	46	79.3	9	22	AAB90973	Luteinising hormon
41	46	79.3	9	22	AAB37133	Peptide #3 generat
42	45	77.6	9	2	AAP10413	Luteinising Hormon
43	45	77.6	9	2	AAP10415	Luteinising Hormon
44	45	77.6	9	2	AAP10007	Gonadoliberin anal
45	45	77.6	9	3	AAP20405	LH-RH analogue 3.

ALIGNMENTS

RESULT 1
AAW94891
ID AAW94891 standard; peptide; 9 AA.
XX
AC AAW94891;
XX
DT 11-MAY-1999 (first entry)
XX
DE LHRH peptide fragment.
XX
KW LHRH; immune response; luteinising hormone releasing hormone; DT;
KW diphtheria toxoid; castrating; oestrus cycling; aggression; breast;
KW sexual activity; organoleptic; livestock; cell growth; malignant;
KW prostate; ovarian; oncofoetal; hyperplastic; pregnancy;
KW endometriosis; inflammatory response.
XX
OS Homo sapiens.
XX
PN WO9902180-A1.
XX
PD 21-JAN-1999.
XX
PF 09-JUL-1998; 98WO-AU00532.
XX
PR 09-JUL-1997; 97AU-0007768.
XX
PA (CSLC-) CSL LTD.
XX
PI McNamara MK;
XX
DR WPI; 1999-120511/10.
XX

PT New immunogenic leutenising hormone releasing hormone compositions -
PT comprise LHRH conjugated to diphtheria toxoid and adsorbed to an
PT ionic polysaccharide, used to inhibit reproductive function in
PT animals
XX
PS Example 3; Page 30; 41pp; English.
XX
CC The invention relates immunogenic composition for eliciting an immune
CC response to luteinising hormone releasing hormone (LHRH). The
CC composition comprises a LHRH-diphtheria toxoid (DT) conjugate adsorbed to
CC an ionic polysaccharide. The LHRH-DT compositions can be used for
CC eliciting an immune response to LHRH, for castrating an animal, for
CC regulating oestrus cycling in a female animal or for inhibiting
CC characteristics induced by the sexual maturation of an animal, e.g.
CC aggression or sexual activity. They can also be used for achieving
CC production gains in livestock, e.g. reduction or elimination of unwanted
CC organoleptic characteristics from the meat of livestock. They can also be
CC used for inhibiting the growth of cells which are regulated directly or
CC indirectly by LHRH, e.g. malignant breast cells, malignant prostate
CC cells, malignant ovarian cells, malignant oncofoetal cells or
CC hyperplastic cells. They can also be used for down-regulating the libido
CC of an animal. They can also be used for inhibiting pregnancy, prostate
CC enlargement, endometriosis or inflammatory responses. The LHRH
CC compositions induce a more effective immune response against LHRH than
CC the LHRH-carrier-adjuvant compositions. The effective immune response
CC against LHRH results in prevention of the release of the hormones LH and
CC FSH from the anterior pituitary. Sequences AAW94890-93 are peptide
CC derivatives of LHRH.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 58; DB 20; Length 9;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HWSYGLRPG 9
|||||||||
Db 1 HWSYGLRPG 9

RESULT 2
AAB15363
ID AAB15363 standard; peptide; 9 AA.
XX
AC AAB15363;
XX
DT 17-JAN-2001 (first entry)
XX
DE Human LHRH peptide SEQ ID NO: 2.
XX
KW Human; LHRH; GnRH; luteinising hormone releasing hormone;
KW gonadotrophin releasing hormone; fertility control; cancer;
KW endometriosis; prostate enlargement.
XX
OS Homo sapiens.
XX
PN WO200041720-A1.
XX
PD 20-JUL-2000.
XX
PF 24-DEC-1999; 99WO-AU01167.
XX
PR 08-JAN-1999; 99AU-0008073.
XX
PA (CSLC-) CSL LTD.
XX
PI Walker J;
XX
DR WPI; 2000-475954/41.
XX
PT Adjuvant composition for manufacturing an immunogenic composition that
PT can elicit an immune response in an animal, comprises an ionic
PT polysaccharide component and a saponin component that is an
PT immunostimulating complex -
XX
PS Disclosure; Page 50; 53pp; English.
XX
CC The present sequence is a peptide fragment of human luteinising hormone
CC releasing hormone (also known as LHRH, GnRH and gonadotrophin releasing
CC hormone). It was used to demonstrate the novel adjuvant of the invention,
CC which has lower reactogenicity then previous compositions. Vaccination of
CC humans and animals against LHRH can be used as a method of fertility
CC control, as well as enabling the control and treatment of disorders of
CC the reproductive organs, such as testicular, breast, prostate and ovarian
CC cancers, prostate enlargement and endometriosis. The composition of the
CC invention contains an anionic macromolecule and a saponin component, the
CC latter of which is an immunostimulant, and it can also be used with other
CC immunogens including soluble protein antigens, peptide haptens conjugated
CC to a carrier protein and whole viruses.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 58; DB 21; Length 9;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HWSYGLRPG 9
|||||||||
Db 1 HWSYGLRPG 9

RESULT 3
AAB08104
ID AAB08104 standard; peptide; 9 AA.
XX
AC AAB08104;
XX
DT 04-DEC-2000 (first entry)
XX
DE Amino acid sequence of truncated luteinising hormone releasing hormone.
XX
KW T helper cell epitope; CDV; immune response; canine vaccine;
KW luteinising hormone releasing hormone; LHRH.
XX
OS Canis sp.
XX
PN WO200046390-A1.
XX
PD 10-AUG-2000.
XX
PF 07-FEB-2000; 2000WO-AU00070.
XX
PR 05-FEB-1999; 99AU-0008533.
PR 04-AUG-1999; 99AU-0002013.
XX
PA (UYME) UNIV MELBOURNE.
PA (CSLC-) CSL LTD.
PA (CSIR) COMMONWEALTH SCI & IND RES ORG.
PA (COUN-) COUNCIL QUEENSLAND INST MEDICAL RES.
PA (HALL-) HALL INST MEDICAL RES WALTER & ELIZA.
XX
PI Jackson DC, Souravi G, Walker J;
XX
DR WPI; 2000-532904/48.
XX
PT Novel T helper cell epitopes derived from canine distemper virus useful
PT for preparation of canine vaccines -
XX
PS Example 3; Page 21; 54pp; English.
XX
CC The present sequence represents luteinising hormone releasing hormone
CC (LHRH). It is used in vaccines with T helper cell epitopes
CC AAB08076-B08101, derived from canine distemper virus (CDV). Compositions
CC comprising these T cell helper epitopes are useful for inducing an
CC immune response in an animal. The epitopes are useful as components
CC of animal, in particular, canine vaccines, either simply as synthetic

```
CC   peptide based vaccines and as additions to vaccines containing more
CC   complex antigens.
XX
SQ   Sequence   9 AA;

  Query Match             100.0%;  Score 58;  DB 21;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRPG 9
              |||||||||
Db          1 HWSYGLRPG 9


RESULT 4
AAB90979
ID   AAB90979 standard; Peptide; 9 AA.
XX
AC   AAB90979;
XX
DT   22-JUN-2001  (first entry)
XX
DE   Luteinising hormone releasing hormone (LH-RH) related peptide SEQ ID:153.
XX
KW   Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW   blood component; modification; succinimidyl; maleimido group; amino;
KW   hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200069900-A2.
XX
PD   23-NOV-2000.
XX
PF   17-MAY-2000; 2000WO-US13576.
XX
PR   17-MAY-1999;   99US-0134406.
PR   10-SEP-1999;   99US-0153406.
PR   15-OCT-1999;   99US-0159783.
XX
PA   (CONJ-) CONJUCHEM INC.
XX
PI   Bridon DP,  Ezrin AM,  Milner PG,  Holmes DL,  Thibaudeau K;
XX
DR   WPI; 2001-112059/12.
XX
PT   Modifying and attaching therapeutic peptides to albumin prevents
PT   peptidase degradation, useful for increasing length of in vivo activity
PT   -
XX
PS   Disclosure; Page 240; 733pp; English.
XX
CC   The present invention describes a modified therapeutic peptide (I)
CC   comprising a therapeutically active amino acid region (III) and a
CC   reactive group (II) (e.g. succinimidyl and maleimido groups) attached to
CC   a less therapeutically active amino acid region (IV), which covalently
CC   bonds with amino/hydroxyl/thiol groups on blood components to form a
CC   peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
CC   (I) are useful for modifying therapeutic peptides e.g. hormones, growth
CC   factors and neurotransmitters, to protect them from peptidase activity
CC   in vivo for the treatment of various disorders. Endogenous therapeutic
CC   peptides are not suitable as drug candidates as they require frequent
CC   administration due to rapid degradation by peptidases in the body.
CC   Modifying and attaching therapeutic peptides to albumin prevents or
CC   reduces the action of peptidases to increase length of activity (half
CC   life) and specificity as bonding to large molecules decreases
CC   intracellular uptake and interference with physiological processes.
CC   AAB90829 to AAB92441 represent peptides which can be used in the
CC   exemplification of the present invention.
XX
SQ   Sequence   9 AA;

  Query Match             100.0%;  Score 58;  DB 22;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRPG 9
              |||||||||
Db          1 HWSYGLRPG 9


RESULT 5
AAB59836
ID   AAB59836 standard; Peptide; 9 AA.
XX
AC   AAB59836;
XX
DT   26-MAR-2001  (first entry)
XX
DE   GnRH peptide.
XX
KW   GnRH-III; autoimmune disease; transplant rejection; retroviral disease;
KW   graft-versus-host-disease; lymphoproliferative disease;
KW   gonadotropin-releasing hormone.
XX
OS   Petromyzon marinus.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "Linked to Glucagon-like peptide"
XX
PN   WO200074724-A2.
XX
PD   14-DEC-2000.
XX
PF   05-JUN-2000; 2000WO-GB02014.
XX
PR   03-JUN-1999;   99GB-0012807.
PR   03-JUN-1999;   99US-0137592.
XX
PA   (BIOI-) BIO INNOVATION LTD.
XX
PI   Franks CR,  Della Bitta R,  Maitland NJ,  Knight DJ;
XX
DR   WPI; 2001-061658/07.
XX
PT   Novel product comprising proliferatively active moiety linked to
PT   genetic material, useful as vectors for protected nucleic acid material
PT   and as mitogen to stimulate proliferation of target cell -
XX
PS   Disclosure; Page 4; 49pp; English.
XX
CC   The present invention relates to a product comprising a proliferatively
CC   active moiety (PAM) linked to nucleic acid material which is associated
CC   with a protective material. The PAM product is useful for manufacturing
CC   a medicament for treating e.g. an autoimmune disease, transplant
CC   rejection, retroviral disease, graft-versus-host-disease, or
CC   lymphoproliferative disease, comprising cells bearing a high affinity
CC   receptor for PAM. The present sequence is a peptide of
CC   gonadotropin-releasing hormone (GnRH). GnRH is a peptide hormone, which
CC   has high-affinity receptors, and therefore can be used in the present
CC   invention.
XX
SQ   Sequence   9 AA;

  Query Match             100.0%;  Score 58;  DB 22;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRPG 9
              |||||||||
Db          1 HWSYGLRPG 9


RESULT 6
```

```
AAB90983
ID   AAB90983 standard; Peptide; 9 AA.
XX
AC   AAB90983;
XX
DT   22-JUN-2001  (first entry)
XX
DE   Luteinising hormone releasing hormone (LH-RH) related peptide SEQ ID:157.
XX
KW   Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW   blood component; modification; succinimidyl; maleimido group; amino;
KW   hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200069900-A2.
XX
PD   23-NOV-2000.
XX
PF   17-MAY-2000; 2000WO-US13576.
XX
PR   17-MAY-1999;   99US-0134406.
PR   10-SEP-1999;   99US-0153406.
PR   15-OCT-1999;   99US-0159783.
XX
PA   (CONJ-) CONJUCHEM INC.
XX
PI   Bridon DP,  Ezrin AM,  Milner PG,  Holmes DL,  Thibaudeau K;
XX
DR   WPI; 2001-112059/12.
XX
PT   Modifying and attaching therapeutic peptides to albumin prevents
PT   peptidase degradation, useful for increasing length of in vivo activity
PT   -
XX
PS   Disclosure; Page 241; 733pp; English.
XX
CC   The present invention describes a modified therapeutic peptide (I)
CC   comprising a therapeutically active amino acid region (III) and a
CC   reactive group (II) (e.g. succinimidyl and maleimido groups) attached to
CC   a less therapeutically active amino acid region (IV), which covalently
CC   bonds with amino/hydroxyl/thiol groups on blood components to form a
CC   peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
CC   (I) are useful for modifying therapeutic peptides e.g. hormones, growth
CC   factors and neurotransmitters, to protect them from peptidase activity
CC   in vivo for the treatment of various disorders. Endogenous therapeutic
CC   peptides are not suitable as drug candidates as they require frequent
CC   administration due to rapid degradation by peptidases in the body.
CC   Modifying and attaching therapeutic peptides to albumin prevents or
CC   reduces the action of peptidases to increase length of activity (half
CC   life) and specificity as bonding to large molecules decreases
CC   intracellular uptake and interference with physiological processes.
CC   AAB90829 to AAB92441 represent peptides which can be used in the
CC   exemplification of the present invention.
XX
SQ   Sequence   9 AA;

  Query Match             94.8%;  Score 55;  DB 22;  Length 9;
  Best Local Similarity   88.9%;  Pred. No. 9.3e+05;
  Matches    8;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRPG 9
              ||||||:||
Db          1 HWSYGLKPG 9


RESULT 7
ABP96550
ID   ABP96550 standard; peptide; 8 AA.
XX
AC   ABP96550;
XX
DT   27-MAY-2003  (first entry)
XX
DE   Gonadotrophin releasing hormone agonist gonadrelin peptide.
XX
KW   Gonadotrophin releasing hormone agonist; GnRH agonist; combination drug;
KW   pharmaceutical; breast cancer; endometriosis; myometrium tumour;
KW   Alzheimer's disease; circulatory system disorder; menopausal disorder;
KW   irregular period; cancer metastasis; premenstrual syndrome; osteopathy;
KW   muscular distress; calcium/phosphorus imbalance; SERM; gynaecological;
KW   selective oestrogen receptor modulator; cytostatic; nootropic; muscular;
KW   neuroprotective; cardiovascular; endocrine; osteopathic; prostatomegally;
KW   prostate cancer.
XX
OS   Synthetic.
XX
PN   WO2003015820-A1.
XX
PD   27-FEB-2003.
XX
PF   08-AUG-2002; 2002WO-JP08130.
XX
PR   10-AUG-2001; 2001JP-0244616.
XX
PA   (TAKE ) TAKEDA CHEM IND LTD.
XX
PI   Furuya S,  Kusaka M;
XX
DR   WPI; 2003-300573/29.
XX
PT   Pharmaceutical composition e.g. for breast cancer comprises
PT   gonadotrophin releasing hormone agonist and selective estrogen receptor
PT   modulator -
XX
PS   Disclosure; Page 9; 73pp; Japanese.
XX
CC   The present invention describes a pharmaceutical composition (I) for
CC   treating breast cancer, endometriosis, myometrium tumour, Alzheimer's
CC   disease, circulatory system disorders, menopausal disorders, irregular
CC   periods, cancer metastasis, premenstrual syndrome, muscular distress or
CC   osteopathies due to calcium/phosphorus imbalance. (I) comprises a
CC   gonadotrophin releasing hormone (GnRH) agonist and a selective oestrogen
CC   receptor modulator (SERM). (I) has cytostatic, gynaecological, nootropic,
CC   neuroprotective, cardiovascular, endocrine, muscular and osteopathic
CC   activities. (I) can be used as GnRH agonists used in combination with
CC   selective oestrogen receptor modulators, selective androgen receptor
CC   modulators, sex hormone synthesis inhibitors, lyase inhibitors,
CC   receptor-type tyrosine kinase inhibitors, bone metabolism regulators,
CC   immunotherapy drugs, cytokine/chemokine inhibitors or endothelin receptor
CC   antagonists for treating and preventing endometriosis, myometrium tumour,
CC   Alzheimer's disease, circulatory system disorders, menopausal disorders,
CC   irregular periods, cancer metastasis, premenstrual syndrome, muscular
CC   distress, osteopathies due to calcium/phosphorus imbalance,
CC   prostatomegally or prostate cancer or breast cancer or their reoccurrence
CC   or metastasis. Combination enhances the quality of life by enhancing
CC   GnRH agonist activity and/or reducing side effects. The present sequence
CC   represents a GnRH agonist related peptide which is given in the present
CC   invention.
XX
SQ   Sequence   8 AA;

  Query Match             89.7%;  Score 52;  DB 24;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRP 8
              ||||||||
Db          1 HWSYGLRP 8


RESULT 8
AAP10414
ID   AAP10414 standard; Protein; 9 AA.
XX
```

```
AC   AAP10414;
XX
DT   25-MAR-2003  (updated)
DT   10-MAR-2003  (updated)
DT   01-JUL-2002  (updated)
DT   17-DEC-1992  (first entry)
XX
DE   Luteinising Hormone Releasing Hormone analogue #3.
XX
KW   LHRH; Follicle Stimulating Factor; FSH; acne; hirsutism;
KW   dysmenorrhea; precocious puberty; endometriosis; prostate cancer;
KW   benign prostate hypertrophy; mammary tumour.
XX
OS   Mammalia.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= OTHER
FT                   /note= "pyroglutamic acid"
FT   Modified-site   9
FT                   /note= "Pro-NH-(CH2)n-CH3 (n=0-2),
FT                          Pro-NH-(CH2)2-OH or protected by
FT                          pyrrolidino or morpholino gp."
XX
PN   BE885308-A.
XX
PD   19-MAR-1981.
XX
PF   23-FEB-1983;   83BE-0468932.
XX
PR   21-SEP-1979;   79FR-0023545.
XX
PA   (ROUS ) ROUSSEL-UCLAF.
XX
PI   Labrie F,  Raynaud J;
XX
DR   WPI; 1981-23409D/14  (23409D).
XX
PT   LH-RH, liberating factor for LH and FSH, and its agonists compsn.
PT   - used to treat prostate adenocarcinoma, benign hypertrophy of
PT   the prostate, hirsutism, acne, etc.
XX
PS   Claim 1(d); Page 15; 27pp; French.
XX
CC   A composition is claimed containing LHRH or its analogues. The
CC   composition is used to treat prostate adenocarcinoma, benign
CC   hypertrophy of the prostate, endometriosis, dysmenorrhea, hirsutism,
CC   hormone-dependent mammary tumours, for treatment or prevention of
CC   precocious puberty, delaying the onset of puberty and for treating
CC   acne. The compositions may also contain antiandrogens.
CC   See AAP10411-P10418.
CC   (Updated on 01-JUL-2002 to add missing PI field.)
CC   (Updated on 10-MAR-2003 to add missing OS field.)
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence   9 AA;

  Query Match             89.7%;  Score 52;  DB 2;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRP 8
              ||||||||
Db          2 HWSYGLRP 9


RESULT 9
AAP50568
ID   AAP50568 standard; Protein; 9 AA.
XX
AC   AAP50568;
XX
DT   03-OCT-2002  (updated)
DT   29-NOV-1991  (first entry)
XX
DE   Sequence of gonadoliberin analogue IIc.
XX
KW   Gonadoliberin agonist; follitropin release; lutropin release;
KW   parathormone; hypertension; therapy.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= pyroGlu
FT   Modified-site   9
FT                   /label= bonded to -NHCH3, -NH-CH2-CH3, -NH-CH2CH2CH3
XX
PN   DE3332329-A.
XX
PD   28-MAR-1985.
XX
PF   08-SEP-1983;   83DE-3332329.
XX
PR   08-SEP-1983;   83DE-3332329.
XX
PA   (FARH ) HOECHST AG.
XX
PI   Konig W,  Neubauer H;
XX
DR   WPI; 1985-081717/14.
XX
PT   Compsn. contg. gonadoliberin or its analogues - for treating
PT   parathormone deficiency states, e.g. hypocalcaemic conditions or
PT   hypertension
XX
PS   Disclosure; Page 6-7; 17pp; German.
XX
CC   The inventors claim a composn. for treating metabolic disorders
CC   caused by inadequate secretion of endogenous parathormone (PTH)
CC   which contains, apart from an acceptable carrier, gonadoliberin or
CC   agonists at least as strongly active as gonadoliberin. For
CC   parenteral use these provide 0.5-5 micrograms gonadoliberin per unit
CC   dose, and for application to mucosa (intranasally) 10-200 micrograms
CC   per dose, for an adult of average wt.
CC   (Updated on 03-OCT-2002 to add missing OS field.)
XX
SQ   Sequence   9 AA;

  Query Match             89.7%;  Score 52;  DB 6;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRP 8
              ||||||||
Db          2 HWSYGLRP 9


RESULT 10
AAR97760
ID   AAR97760 standard; Peptide; 9 AA.
XX
AC   AAR97760;
XX
DT   27-AUG-1996  (first entry)
XX
DE   Seabream gonadotropin releasing hormone sbGnRH-I.
XX
KW   Gonadotropin releasing hormone; GnRH; sbGnRH; gonadoliberin;
KW   spawning; ovulation; fish farming; transgenic fish; seabream.
XX
OS   Sparus aurata.
XX
PN   WO9617619-A1.
XX
```

PD 13-JUN-1996.
XX
PF 04-DEC-1995; 95WO-US15886.
XX
PR 05-DEC-1994; 94US-0341219.
XX
PA (UYMA-) UNIV MARYLAND BIOTECHNOLOGY INST.
PA (UYVI-) UNIV VICTORIA INNOVATION & DEV CORP.
XX
PI Gothilf Y, Powell J, Rivier JEF, Sherwood NM, Zohar Y;
XX
DR WPI; 1996-286922/29.
XX
PT Novel seabream gonadotropin-releasing hormone and its analogues -
PT useful for controlling gonadal development and spawning in fish
XX
PS Disclosure; Page 24; 63pp; English.
XX
CC A seabream pitutary extract was subjected to HPLC. A fraction
CC showing gonadotropin releasing hormone (GnRH) activity was
CC subjected to pyroglutamyl aminopeptidase digestion and the
CC peptide obtd. (AAR97760) was sequenced. Based on the novelty of
CC the Ser residue at position 8, this peptide was named sbGnRH-I
CC (see also AAR97757). sbGnRH is useful for controlling reproduction
CC in fish.
XX
SQ Sequence 9 AA;

Query Match 89.7%; Score 52; DB 17; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HWSYGLRPG 9
||||||.||
Db 1 HWSYGLSPG 9

RESULT 11
AAB90972
ID AAB90972 standard; Peptide; 9 AA.
XX
AC AAB90972;
XX
DT 22-JUN-2001 (first entry)
XX
DE Luteinising hormone releasing hormone (LH-RH) related peptide SEQ ID:146.
XX
KW Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW blood component; modification; succinimidyl; maleimido group; amino;
KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200069900-A2.
XX
PD 23-NOV-2000.
XX
PF 17-MAY-2000; 2000WO-US13576.
XX
PR 17-MAY-1999; 99US-0134406.
PR 10-SEP-1999; 99US-0153406.
PR 15-OCT-1999; 99US-0159783.
XX
PA (CONJ-) CONJUCHEM INC.
XX
PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;
XX
DR WPI; 2001-112059/12.
XX
PT Modifying and attaching therapeutic peptides to albumin prevents
PT peptidase degradation, useful for increasing length of in vivo activity
PT -
XX
PS Disclosure; Page 238; 733pp; English.
XX
CC The present invention describes a modified therapeutic peptide (I)
CC comprising a therapeutically active amino acid region (III) and a
CC reactive group (II) (e.g. succinimidyl and maleimido groups) attached to
CC a less therapeutically active amino acid region (IV), which covalently
CC bonds with amino/hydroxyl/thiol groups on blood components to form a
CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
CC factors and neurotransmitters, to protect them from peptidase activity
CC in vivo for the treatment of various disorders. Endogenous therapeutic
CC peptides are not suitable as drug candidates as they require frequent
CC administration due to rapid degradation by peptidases in the body.
CC Modifying and attaching therapeutic peptides to albumin prevents or
CC reduces the action of peptidases to increase length of activity (half
CC life) and specificity as bonding to large molecules decreases
CC intracellular uptake and interference with physiological processes.
CC AAB90829 to AAB92441 represent peptides which can be used in the
CC exemplification of the present invention.
XX
SQ Sequence 9 AA;

Query Match 89.7%; Score 52; DB 22; Length 9;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HWSYGLRP 8
||||||||
Db 2 HWSYGLRP 9

RESULT 12
AAB90986
ID AAB90986 standard; Peptide; 9 AA.
XX
AC AAB90986;
XX
DT 22-JUN-2001 (first entry)
XX
DE Luteinising hormone releasing hormone (LH-RH) related peptide SEQ ID:160.
XX
KW Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW blood component; modification; succinimidyl; maleimido group; amino;
KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200069900-A2.
XX
PD 23-NOV-2000.
XX
PF 17-MAY-2000; 2000WO-US13576.
XX
PR 17-MAY-1999; 99US-0134406.
PR 10-SEP-1999; 99US-0153406.
PR 15-OCT-1999; 99US-0159783.
XX
PA (CONJ-) CONJUCHEM INC.
XX
PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;
XX
DR WPI; 2001-112059/12.
XX
PT Modifying and attaching therapeutic peptides to albumin prevents
PT peptidase degradation, useful for increasing length of in vivo activity
PT -
XX
PS Disclosure; Page 242; 733pp; English.
XX
CC The present invention describes a modified therapeutic peptide (I)
CC comprising a therapeutically active amino acid region (III) and a

CC reactive group (II) (e.g. succinimidyl and maleimido groups) attached to
CC a less therapeutically active amino acid region (IV), which covalently
CC bonds with amino/hydroxyl/thiol groups on blood components to form a
CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
CC factors and neurotransmitters, to protect them from peptidase activity
CC in vivo for the treatment of various disorders. Endogenous therapeutic
CC peptides are not suitable as drug candidates as they require frequent
CC administration due to rapid degradation by peptidases in the body.
CC Modifying and attaching therapeutic peptides to albumin prevents or
CC reduces the action of peptidases to increase length of activity (half
CC life) and specificity as bonding to large molecules decreases
CC intracellular uptake and interference with physiological processes.
CC AAB90829 to AAB92441 represent peptides which can be used in the
CC exemplification of the present invention.
XX
SQ Sequence 9 AA;

Query Match 89.7%; Score 52; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HWSYGLRPG 9
|||| ||||
Db 1 HWSYSLRPG 9

RESULT 13
ABP96548
ID ABP96548 standard; peptide; 9 AA.
XX
AC ABP96548;
XX
DT 27-MAY-2003 (first entry)
XX
DE Gonadotrophin releasing hormone agonist nafarelin peptide.
XX
KW Gonadotrophin releasing hormone agonist; GnRH agonist; combination drug;
KW pharmaceutical; breast cancer; endometriosis; myometrium tumour;
KW Alzheimer's disease; circulatory system disorder; menopausal disorder;
KW irregular period; cancer metastasis; premenstrual syndrome; osteopathy;
KW muscular distress; calcium/phosphorus imbalance; SERM; gynaecological;
KW selective oestrogen receptor modulator; cytostatic; nootropic; muscular;
KW neuroprotective; cardiovascular; endocrine; osteopathic; prostatomegally;
KW prostate cancer.
XX
OS Synthetic.
XX
PN WO2003015820-A1.
XX
PD 27-FEB-2003.
XX
PF 08-AUG-2002; 2002WO-JP08130.
XX
PR 10-AUG-2001; 2001JP-0244616.
XX
PA (TAKE) TAKEDA CHEM IND LTD.
XX
PI Furuya S, Kusaka M;
XX
DR WPI; 2003-300573/29.
XX
PT Pharmaceutical composition e.g. for breast cancer comprises
PT gonadotrophin releasing hormone agonist and selective estrogen receptor
PT modulator -
XX
PS Disclosure; Page 8; 73pp; Japanese.
XX
CC The present invention describes a pharmaceutical composition (I) for
CC treating breast cancer, endometriosis, myometrium tumour, Alzheimer's
CC disease, circulatory system disorders, menopausal disorders, irregular
CC periods, cancer metastasis, premenstrual syndrome, muscular distress or
CC osteopathies due to calcium/phosphorus imbalance. (I) comprises a
CC gonadotrophin releasing hormone (GnRH) agonist and a selective oestrogen
CC receptor modulator (SERM). (I) has cytostatic, gynaecological, nootropic,
CC neuroprotective, cardiovascular, endocrine, muscular and osteopathic
CC activities. (I) can be used as GnRH agonists used in combination with
CC selective oestrogen receptor modulators, selective androgen receptor
CC modulators, sex hormone synthesis inhibitors, lyase inhibitors,
CC receptor-type tyrosine kinase inhibitors, bone metabolism regulators,
CC immunotherapy drugs, cytokine/chemokine inhibitors or endothelin receptor
CC antagonists for treating and preventing endometriosis, myometrium tumour,
CC Alzheimer's disease, circulatory system disorders, menopausal disorders,
CC irregular periods, cancer metastasis, premenstrual syndrome, muscular
CC distress, osteopathies due to calcium/phosphorus imbalance,
CC prostatomegally or prostate cancer or breast cancer or their reoccurrence
CC or metastasis. Combination enhances the quality of life by enhancing
CC GnRH agonist activity and/or reducing side effects. The present sequence
CC represents a GnRH agonist related peptide which is given in the present
CC invention.
XX
SQ Sequence 9 AA;

Query Match 89.7%; Score 52; DB 24; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HWSYGLRPG 9
|||| ||||
Db 1 HWSYALRPG 9

RESULT 14
ABP96021
ID ABP96021 standard; peptide; 9 AA.
XX
AC ABP96021;
XX
DT 02-MAY-2003 (first entry)
XX
DE Gonadotrophin releasing hormone agonist peptide gonadrelin.
XX
KW Gonadotrophin releasing hormone agonist; GnRH agonist; cancer;
KW premenopausal breast cancer; cytostatic.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 9
FT /note= "Pro is C-terminally modified with -NHCH2CH3"
XX
PN WO200287616-A1.
XX
PD 07-NOV-2002.
XX
PF 24-APR-2002; 2002WO-JP04071.
XX
PR 25-APR-2001; 2001JP-0128032.
XX
PA (TAKE) TAKEDA CHEM IND LTD.
XX
PI Igari Y, Kusaka M;
XX
DR WPI; 2003-148286/14.
XX
PT Agent for preventing post-operative recurrence of premenopausal breast
PT cancer contains GnRH agonists or antagonists -
XX
PS Disclosure; Page 7; 39pp; Japanese.
XX
CC The present invention describes an agent containing gonadotrophin
CC releasing hormone (GnRH) agonists or antagonists. GnRH agonist and
CC antagonists have cytostatic activity. The agent can be used for
CC preventing post-operative recurrence of premenopausal breast cancer.
CC The agents have no serious side effects with sustained drug effect
CC over a long period without frequent administration. The present

```
CC   sequence represents an example of a GnRH agonist, from the present
CC   invention.
XX
SQ   Sequence   9 AA;

  Query Match             89.7%;  Score 52;  DB 24;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRP 8
              ||||||||
Db          2 HWSYGLRP 9


RESULT 15
AAE29840
ID   AAE29840 standard; peptide; 9 AA.
XX
AC   AAE29840;
XX
DT   24-FEB-2003  (first entry)
XX
DE   Gonadotrophin releasing hormone analogue (GnRH-A) #3.
XX
KW   Gonadotrophin releasing hormone analogue; neurotoxin; prostate cancer;
KW   endocrine disorder; gonadotrophin related illness; endometrial cancer;
KW   pancreatic cancer; breast cancer; endometriosis; precocious puberty;
KW   GnRH-A; therapy.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "Pyroglutamic acid"
FT   Modified-site   9
FT                   /note= "C-terminal ethylamide"
XX
PN   WO200274327-A2.
XX
PD   26-SEP-2002.
XX
PF   11-MAR-2002; 2002WO-US07379.
XX
PR   15-MAR-2001; 2001US-0810601.
XX
PA   (ALLR ) ALLERGAN SALES INC.
XX
PI   Donovan S;
XX
DR   WPI; 2003-018772/01.
XX
PT   New agent comprising a light chain and a (modified) heavy chain of a
PT   botulinum, butyricum, or tetani toxin, useful for treating a
PT   gonadotrophin related illness, e.g. breast, prostate pancreatic or
PT   endometrial cancer, or endometriosis  -
XX
PS   Disclosure; Page 29; 97pp; English.
XX
CC   The invention relates to an agent comprising a neurotoxin preferably
CC   botulinum toxin for treating endocrine disorders for e.g. gonadotrophin
CC   related illness. The agent is useful for treating gonadotrophin related
CC   illness e.g. prostate cancer, endometrial cancer, pancreatic cancer,
CC   breast cancer, endometriosis or precocious puberty. It is also useful
CC   for decreasing gonadotrophin secretion in a mammal. The present sequence
CC   is gonadotrophin releasing hormone analogue (GnRH-A).
XX
SQ   Sequence   9 AA;

  Query Match             89.7%;  Score 52;  DB 24;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRP 8
              ||||||||
Db          2 HWSYGLRP 9


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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	45	77.6	9	10	US-09-746-945-2	Sequence 2, Appli
2	41.5	71.6	8	12	US-10-351-641-1000	Sequence 1000, Ap
3	28	48.3	6	14	US-10-016-283-13	Sequence 13, Appl
4	28	48.3	7	9	US-09-265-606-4	Sequence 4, Appli
5	28	48.3	9	9	US-09-192-854-117	Sequence 117, App
6	28	48.3	9	10	US-09-968-561A-204	Sequence 204, App
7	28	48.3	9	12	US-09-968-744A-204	Sequence 204, App
8	27	46.6	9	11	US-09-791-393-72	Sequence 72, Appl
9	27	46.6	9	11	US-09-791-389-72	Sequence 72, Appl
10	27	46.6	9	12	US-10-022-066-442	Sequence 442, App
11	26	44.8	9	11	US-09-809-638-463	Sequence 463, App
12	26	44.8	9	14	US-10-062-257-16	Sequence 16, Appl
13	26	44.8	9	15	US-10-165-603-8	Sequence 8, Appli
14	25	43.1	6	14	US-10-016-283-3	Sequence 3, Appli
15	25	43.1	7	12	US-09-990-832C-38	Sequence 38, Appl
16	25	43.1	7	15	US-10-254-446A-239	Sequence 239, App
17	25	43.1	8	12	US-10-089-549-10	Sequence 10, Appl
18	25	43.1	9	14	US-10-109-331-6	Sequence 6, Appli
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20	25	43.1	9	14	US-10-109-331-10	Sequence 10, Appl
21	25	43.1	9	14	US-10-109-331-12	Sequence 12, Appl
22	25	43.1	9	14	US-10-109-331-14	Sequence 14, Appl
23	25	43.1	9	14	US-10-109-331-16	Sequence 16, Appl
24	25	43.1	9	14	US-10-109-331-18	Sequence 18, Appl
25	25	43.1	9	14	US-10-109-331-20	Sequence 20, Appl
26	25	43.1	9	14	US-10-109-331-22	Sequence 22, Appl
27	25	43.1	9	14	US-10-109-331-24	Sequence 24, Appl
28	25	43.1	9	14	US-10-109-331-26	Sequence 26, Appl
29	25	43.1	9	14	US-10-109-331-28	Sequence 28, Appl
30	25	43.1	9	14	US-10-109-331-30	Sequence 30, Appl
31	25	43.1	9	15	US-10-254-446A-151	Sequence 151, App
32	24	41.4	6	14	US-10-016-283-11	Sequence 11, Appl
33	24	41.4	7	15	US-10-193-709-17	Sequence 17, Appl
34	24	41.4	8	12	US-10-351-641-919	Sequence 919, App
35	23	39.7	7	10	US-09-911-838-173	Sequence 173, App
36	23	39.7	9	9	US-09-756-899A-1	Sequence 1, Appli
37	23	39.7	9	12	US-10-169-351-24	Sequence 24, Appl
38	23	39.7	9	15	US-10-062-710-16	Sequence 16, Appl
39	22	37.9	4	9	US-09-873-676-106	Sequence 106, App
40	22	37.9	6	10	US-09-847-940B-15	Sequence 15, Appl
41	22	37.9	6	11	US-09-847-946A-15	Sequence 15, Appl
42	22	37.9	7	9	US-09-873-676-97	Sequence 97, Appl
43	22	37.9	7	12	US-10-292-418-43	Sequence 43, Appl
44	22	37.9	7	12	US-10-239-555A-4	Sequence 4, Appli
45	22	37.9	8	9	US-09-012-135A-33	Sequence 33, Appl

ALIGNMENTS

RESULT 1
US-09-746-945-2
; Sequence 2, Application US/09746945
; Patent No. US20020146779A1
; GENERAL INFORMATION:
; APPLICANT: COTTINGHAM, Ian R
; APPLICANT: MILLAR, Alan R
; APPLICANT: McKEE, Colin M
; APPLICANT: PPL Therapeutics (Scotland) Ltd
; TITLE OF INVENTION: Methods
; FILE REFERENCE: P21083WO
; CURRENT APPLICATION NUMBER: US/09/746,945
; CURRENT FILING DATE: 2000-12-21
; PRIOR APPLICATION NUMBER: GB 9813912.4
; PRIOR FILING DATE: 1998-06-26
; PRIOR APPLICATION NUMBER: US 60/098,281
; PRIOR FILING DATE: 1998-08-28
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Fusion
; OTHER INFORMATION: Protein N-terminal
US-09-746-945-2

Query Match 77.6%; Score 45; DB 10; Length 9;
Best Local Similarity 100.0%; Pred. No. 5.9e+05;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 HWSYGLR 7
              |||||||
Db          3 HWSYGLR 9
```

RESULT 2

US-10-351-641-1000
; Sequence 1000, Application US/10351641
; Publication No. US20030186874A1
; GENERAL INFORMATION:
; APPLICANT: Barney, S.
; APPLICANT: Guthrie, K.
; APPLICANT: Merutka, G.
; APPLICANT: Anwer, M.
; APPLICANT: Lambert, D.
; TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC
; TITLE OF INVENTION: PROPERTIES
; FILE REFERENCE: 7872-100
; CURRENT APPLICATION NUMBER: US/10/351,641
; CURRENT FILING DATE: 2003-01-24
; PRIOR APPLICATION NUMBER: 09/350,641
; PRIOR FILING DATE: 1999-07-09
; PRIOR APPLICATION NUMBER: 09/315,304
; PRIOR FILING DATE: 1999-05-20
; PRIOR APPLICATION NUMBER: 09/082,279
; PRIOR FILING DATE: 1998-05-20
; NUMBER OF SEQ ID NOS: 1757
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1000
; LENGTH: 8
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Core polypeptide
US-10-351-641-1000

Query Match 71.6%; Score 41.5; DB 12; Length 8;
Best Local Similarity 88.9%; Pred. No. 5.9e+05;
Matches 8; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 HWSYGLRPG 9
|||| ||||
Db 1 HWSY-LRPG 8

RESULT 3
US-10-016-283-13
; Sequence 13, Application US/10016283
; Publication No. US20020164702A1
; GENERAL INFORMATION:
; APPLICANT: Valenzuela et al., David M.
; TITLE OF INVENTION: NOVEL TYROSINE KINASE RECEPTORS AND LIGANDS
; FILE REFERENCE: REG195-B-PCT-US
; CURRENT APPLICATION NUMBER: US/10/016,283
; CURRENT FILING DATE: 2001-11-30
; PRIOR APPLICATION NUMBER: US/09/077,955A
; PRIOR FILING DATE: 1998-09-10
; PRIOR APPLICATION NUMBER: PCT/US96/20696
; PRIOR FILING DATE: 1996-12-13
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
; LENGTH: 6
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: primer
US-10-016-283-13

Query Match 48.3%; Score 28; DB 14; Length 6;
Best Local Similarity 100.0%; Pred. No. 5.9e+05;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 WSYG 5
||||
Db 3 WSYG 6

RESULT 4

US-09-265-606-4
; Sequence 4, Application US/09265606
; Patent No. US20020034789A1
; GENERAL INFORMATION:
; APPLICANT: Zimmermann, Rainer; Park, John E.;
; APPLICANT: Rettig, Wolfgang; Old, Lloyd J.
; TITLE OF INVENTION: ISOLATED DIMERIC FIBROBLAST ACTIVATION PROTEIN
; TITLE OF INVENTION: ALPHA, AND USES THEREOF
; NUMBER OF SEQUENCES: 10
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Felfe & Lynch
; STREET: 805 Third Avenue
; CITY: New York City
; STATE: New York
; COUNTRY: USA
; ZIP: 10022
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 3.5 inch, 2.0 MB storage
; COMPUTER: IBM PS/2
; OPERATING SYSTEM: PC-DOS
; SOFTWARE: Wordperfect
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/265,606
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/08/619,280
; FILING DATE: 18-MARCH-1996
; APPLICATION NUMBER: 08/230,491
; FILING DATE: 20-APRIL-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: Hanson, No. US20020034789A1man D.
; REGISTRATION NUMBER: 30,946
; REFERENCE/DOCKET NUMBER: LUD 5330.1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 688-9200
; TELEFAX: (212) 838-3884
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; FEATURE:
; OTHER INFORMATION: The first Xaa is either Trp or Phe.
US-09-265-606-4

Query Match 48.3%; Score 28; DB 9; Length 7;
Best Local Similarity 100.0%; Pred. No. 5.9e+05;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 WSYG 5
||||
Db 3 WSYG 6

RESULT 5
US-09-192-854-117
; Sequence 117, Application US/09192854
; Patent No. US20020068276A1
; GENERAL INFORMATION:
; APPLICANT: Winter, Greg
; APPLICANT: Tomlinson, Ian
; TITLE OF INVENTION: Methods for Selecting Functional Peptides
; FILE REFERENCE: 3789/72916
; CURRENT APPLICATION NUMBER: US/09/192,854
; CURRENT FILING DATE: 1998-11-17
; EARLIER APPLICATION NUMBER: 60/066,729
; EARLIER FILING DATE: 1997-11-21
; NUMBER OF SEQ ID NOS: 212
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 117
; LENGTH: 9
; TYPE: PRT

; ORGANISM: Homo sapiens
US-09-192-854-117

  Query Match 48.3%; Score 28; DB 9; Length 9;
  Best Local Similarity 100.0%; Pred. No. 5.9e+05;
  Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 GLRPG 9
      |||||
Db 4 GLRPG 8

RESULT 6
US-09-968-561A-204
; Sequence 204, Application US/09968561A
; Patent No. US20020164642A1
; GENERAL INFORMATION:
; APPLICANT: Tomlinson, Ian M
; APPLICANT: Winter, Gregory
; TITLE OF INVENTION: Method to Screen Phage Display Libraries with Different Ligands
; FILE REFERENCE: 8039/1073B
; CURRENT APPLICATION NUMBER: US/09/968,561A
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: GB 9722131.1
; PRIOR FILING DATE: 1997-10-20
; PRIOR APPLICATION NUMBER: US 60/065,248
; PRIOR FILING DATE: 1997-11-13
; PRIOR APPLICATION NUMBER: US 60/066,729
; PRIOR FILING DATE: 1997-11-21
; PRIOR APPLICATION NUMBER: PCT/GB98/03135
; PRIOR FILING DATE: 1998-10-20
; PRIOR APPLICATION NUMBER: US 09/511,939
; PRIOR FILING DATE: 2000-02-24
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 204
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-968-561A-204

  Query Match 48.3%; Score 28; DB 10; Length 9;
  Best Local Similarity 100.0%; Pred. No. 5.9e+05;
  Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 GLRPG 9
      |||||
Db 4 GLRPG 8

RESULT 7
US-09-968-744A-204
; Sequence 204, Application US/09968744A
; Publication No. US20030148372A1
; GENERAL INFORMATION:
; APPLICANT: Tomlinson, Ian M
; APPLICANT: Winter, Gregory
; TITLE OF INVENTION: Method to Screen Phage Display Libraries with Different Ligands
; FILE REFERENCE: 8039/1073
; CURRENT APPLICATION NUMBER: US/09/968,744A
; CURRENT FILING DATE: 2003-01-13
; PRIOR APPLICATION NUMBER: GB 9722131.1
; PRIOR FILING DATE: 1997-10-20
; PRIOR APPLICATION NUMBER: US 60/065,248
; PRIOR FILING DATE: 1997-11-13
; PRIOR APPLICATION NUMBER: US 60/066,729
; PRIOR FILING DATE: 1997-11-21
; PRIOR APPLICATION NUMBER: PCT/GB98/03135
; PRIOR FILING DATE: 1998-10-20
; PRIOR APPLICATION NUMBER: US 09/511,939
; PRIOR FILING DATE: 2000-02-24
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 204
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-968-744A-204

  Query Match 48.3%; Score 28; DB 12; Length 9;
  Best Local Similarity 100.0%; Pred. No. 5.9e+05;
  Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 GLRPG 9
      |||||
Db 4 GLRPG 8

RESULT 8
US-09-791-393-72
; Sequence 72, Application US/09791393
; Publication No. US20030032200A1
; GENERAL INFORMATION:
; APPLICANT: Herath, Herath Mudiyanselage Athula Chandrasiri
; APPLICANT: Parekh, Rajesh Bhikhu
; APPLICANT: Rohlff, Christian
; TITLE OF INVENTION: Proteins, Genes and Their Use for
; TITLE OF INVENTION: Diagnosis and Treatment of Bipolar Affective Disorder (BAD)
; TITLE OF INVENTION: and Unipolar Depression
; FILE REFERENCE: 2543-1-001 N1
; CURRENT APPLICATION NUMBER: US/09/791,393
; CURRENT FILING DATE: 2002-01-02
; EARLIER APPLICATION NUMBER: GB 0004412.3
; EARLIER FILING DATE: 2000-02-24
; EARLIER APPLICATION NUMBER: GB 0030050.9
; EARLIER FILING DATE: 2000-12-08
; EARLIER APPLICATION NUMBER: US 60/254,830
; EARLIER FILING DATE: 2000-12-12
; NUMBER OF SEQ ID NOS: 308
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 72
; LENGTH: 9
; TYPE: PRT
; ORGANISM: homo sapien
US-09-791-393-72

  Query Match 46.6%; Score 27; DB 11; Length 9;
  Best Local Similarity 66.7%; Pred. No. 5.9e+05;
  Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 3 SYGLRP 8
      |||::|
Db 3 SYGVKP 8

RESULT 9
US-09-791-389-72
; Sequence 72, Application US/09791389
; Publication No. US20030032773A1
; GENERAL INFORMATION:
; APPLICANT: Herath, Herath Mudiyanselage Athula Chandrasiri
; APPLICANT: Parekh, Rajesh Bhikhu
; APPLICANT: Rohlff, Christian
; APPLICANT: Terrett, Jonathan Alexander
; APPLICANT: Tyson, Kerry Louise
; TITLE OF INVENTION: Proteins, Genes and Their Use for
; TITLE OF INVENTION: Diagnosis and Treatment of Bipolar Affective Disorder (BAD)
; TITLE OF INVENTION: and Unipolar Depression
; FILE REFERENCE: 2543-1-001 N2
; CURRENT APPLICATION NUMBER: US/09/791,389
; CURRENT FILING DATE: 2001-02-23
; PRIOR APPLICATION NUMBER: GB 0004412.3
; PRIOR FILING DATE: 2000-02-24
; PRIOR APPLICATION NUMBER: GB 0030050.9
; PRIOR FILING DATE: 2000-12-08
; PRIOR APPLICATION NUMBER: US 60/254,830

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;  PRIOR FILING DATE: 2000-12-12
;  NUMBER OF SEQ ID NOS: 308
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 72
;    LENGTH: 9
;    TYPE: PRT
;    ORGANISM: homo sapien
US-09-791-389-72

  Query Match             46.6%;  Score 27;  DB 11;  Length 9;
  Best Local Similarity   66.7%;  Pred. No. 5.9e+05;
  Matches    4;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 SYGLRP 8
              |||::|
Db          3 SYGVKP 8


RESULT 10
US-10-022-066-442
; Sequence 442, Application US/10022066
; Publication No. US20030166057A1
; GENERAL INFORMATION:
;  APPLICANT: HILDEBRAND, WILLIAM H.
;  APPLICANT:  PRILLIMAN, KILEY RAE
;  TITLE OF INVENTION: METHOD AND APPARATUS FOR THE PRODUCTION OF ANTIGENS AND
;  TITLE OF INVENTION:  USES THEREOF
;  FILE REFERENCE: 6680.034
;  CURRENT APPLICATION NUMBER: US/10/022,066
;  CURRENT FILING DATE:  2002-09-09
;  PRIOR APPLICATION NUMBER: 60/256,410
;  PRIOR FILING DATE: 2000-12-18
;  PRIOR APPLICATION NUMBER: 60/256,409
;  PRIOR FILING DATE: 2000-12-18
;  PRIOR APPLICATION NUMBER: 09/465,321
;  PRIOR FILING DATE: 1999-12-17
;  PRIOR APPLICATION NUMBER: 09/974,366
;  PRIOR FILING DATE: 2001-10-10
;  NUMBER OF SEQ ID NOS: 638
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 442
;    LENGTH: 9
;    TYPE: PRT
;    ORGANISM: Artificial Sequence
;    FEATURE:
;    OTHER INFORMATION: Description of Artificial Sequence: Synthetic
;    OTHER INFORMATION: peptide
;    FEATURE:
;    NAME/KEY: MOD_RES
;    LOCATION: (3)
;    OTHER INFORMATION: Unknown amino acid
US-10-022-066-442

  Query Match             46.6%;  Score 27;  DB 12;  Length 9;
  Best Local Similarity   75.0%;  Pred. No. 5.9e+05;
  Matches    3;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HWSY 4
              ||:|
Db          6 HWTY 9


RESULT 11
US-09-809-638-463
; Sequence 463, Application US/09809638
; Publication No. US20030059895A1
; GENERAL INFORMATION:
;  APPLICANT: Mary Faris
;  APPLICANT:  Pia M. Challita-Eid
;  APPLICANT:  Steve Chappell Mitchell
;  APPLICANT:  Daniel E.H. Afar
;  APPLICANT:  Arthur B. Raitano
;  APPLICANT:  Aya Jakobovits
;  TITLE OF INVENTION: 125P5C8:  A TISSUE SPECIFIC PROTEIN
;  TITLE OF INVENTION:  HIGHLY EXPRESSED IN VARIOUS CANCERS
;  FILE REFERENCE: 129.35US01
;  CURRENT APPLICATION NUMBER: US/09/809,638
;  CURRENT FILING DATE:  2001-03-14
;  NUMBER OF SEQ ID NOS: 746
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 463
;    LENGTH: 9
;    TYPE: PRT
;    ORGANISM: Homo sapiens
US-09-809-638-463

  Query Match             44.8%;  Score 26;  DB 11;  Length 9;
  Best Local Similarity   60.0%;  Pred. No. 5.9e+05;
  Matches    3;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 HWSYG 5
              || :|
Db          1 HWVFG 5


RESULT 12
US-10-062-257-16
; Sequence 16, Application US/10062257
; Publication No. US20020128201A1
; GENERAL INFORMATION:
;  APPLICANT: ITOH, Kyogo
;  TITLE OF INVENTION: Tumor antigen
;  FILE REFERENCE: GP00-1017
;  CURRENT APPLICATION NUMBER: US/10/062,257
;  CURRENT FILING DATE:  2002-02-01
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 16
;    LENGTH: 9
;    TYPE: PRT
;    ORGANISM: Homo sapiens
US-10-062-257-16

  Query Match             44.8%;  Score 26;  DB 14;  Length 9;
  Best Local Similarity   60.0%;  Pred. No. 5.9e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WSYGL 6
              ||:|:
Db          3 WSFGI 7


RESULT 13
US-10-165-603-8
; Sequence 8, Application US/10165603
; Publication No. US20030021792A1
; GENERAL INFORMATION:
;  APPLICANT: Roben, Paul W.
;  APPLICANT:  Stevens, Anthony C.
;  TITLE OF INVENTION: TISSUE-SPECIFIC ENDOTHELIAL MEMBRANE
;  TITLE OF INVENTION:  PROTEINS
;  FILE REFERENCE: TPTECH.001A
;  CURRENT APPLICATION NUMBER: US/10/165,603
;  CURRENT FILING DATE:  2002-06-07
;  PRIOR APPLICATION NUMBER: 60/297,021
;  PRIOR FILING DATE: 2001-06-08
;  PRIOR APPLICATION NUMBER: 60/305,117
;  PRIOR FILING DATE: 2001-07-12
;  NUMBER OF SEQ ID NOS: 33
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 8
;    LENGTH: 9
;    TYPE: PRT
;    ORGANISM: Artificial Sequence
;    FEATURE:
;    OTHER INFORMATION: Peptide corresponding to rat carbonic anhydrase
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; OTHER INFORMATION: IV.
US-10-165-603-8

  Query Match 44.8%; Score 26; DB 15; Length 9;
  Best Local Similarity 42.9%; Pred. No. 5.9e+05;
  Matches 3; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HWSYGLR 7
      || | ::
Db 3 HWCYEIQ 9

RESULT 14
US-10-016-283-3
; Sequence 3, Application US/10016283
; Publication No. US20020164702A1
; GENERAL INFORMATION:
; APPLICANT: Valenzuela et al., David M.
; TITLE OF INVENTION: NOVEL TYROSINE KINASE RECEPTORS AND LIGANDS
; FILE REFERENCE: REG195-B-PCT-US
; CURRENT APPLICATION NUMBER: US/10/016,283
; CURRENT FILING DATE: 2001-11-30
; PRIOR APPLICATION NUMBER: US/09/077,955A
; PRIOR FILING DATE: 1998-09-10
; PRIOR APPLICATION NUMBER: PCT/US96/20696
; PRIOR FILING DATE: 1996-12-13
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
; LENGTH: 6
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: primer
US-10-016-283-3

  Query Match 43.1%; Score 25; DB 14; Length 6;
  Best Local Similarity 75.0%; Pred. No. 5.9e+05;
  Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 2 WSYG 5
      |:||
Db 3 WAYG 6

RESULT 15
US-09-990-832C-38
; Sequence 38, Application US/09990832C
; Publication No. US20030149235A1
; GENERAL INFORMATION:
; APPLICANT: University Court of the University of Glasgow
; TITLE OF INVENTION: Targeting peptides
; FILE REFERENCE: PC/MC/JM/P11910US
; CURRENT APPLICATION NUMBER: US/09/990,832C
; CURRENT FILING DATE: 2003-01-27
; NUMBER OF SEQ ID NOS: 127
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 38
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Targeting peptide sequence
US-09-990-832C-38

  Query Match 43.1%; Score 25; DB 12; Length 7;
  Best Local Similarity 66.7%; Pred. No. 5.9e+05;
  Matches 4; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HWSYGL 6
      || ||
Db 2 HWHGGL 7

Search completed: November 17, 2003, 18:39:40
Job time : 23.5 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:28:20 ; Search time 14.5 Seconds
(without alignments)
26.262 Million cell updates/sec

Title: US-09-462-089-2
Perfect score: 58
Sequence: 1 HWSYGLRPG 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 77717

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
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2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	52	89.7	9	1	US-08-341-219-8	Sequence 8, Appli
2	52	89.7	9	3	US-08-912-314A-8	Sequence 8, Appli
3	50	86.2	8	1	US-08-343-883-2	Sequence 2, Appli
4	50	86.2	9	6	5519002-1	Patent No. 5519002
5	47	81.0	9	4	US-09-450-443E-10	Sequence 10, Appl
6	45	77.6	9	1	US-08-591-917-2	Sequence 2, Appli
7	45	77.6	9	4	US-09-309-828-3	Sequence 3, Appli
8	45	77.6	9	4	US-09-309-828-4	Sequence 4, Appli
9	45	77.6	9	6	5488036-2	Patent No. 5488036
10	44	75.9	7	2	US-08-871-689-2	Sequence 2, Appli
11	44	75.9	9	1	US-08-188-918-2	Sequence 2, Appli
12	44	75.9	9	1	US-08-591-917-3	Sequence 3, Appli
13	44	75.9	9	6	5488036-3	Patent No. 5488036
14	42	72.4	9	1	US-08-188-918-1	Sequence 1, Appli
15	41.5	71.6	8	3	US-09-082-279B-1000	Sequence 1000, Ap
16	41.5	71.6	8	4	US-09-315-304B-1000	Sequence 1000, Ap
17	41.5	71.6	8	4	US-09-834-784-1000	Sequence 1000, Ap
18	40	69.0	7	2	US-08-871-689-4	Sequence 4, Appli
19	40	69.0	9	1	US-08-341-219-9	Sequence 9, Appli
20	40	69.0	9	3	US-08-912-314A-9	Sequence 9, Appli
21	40	69.0	9	4	US-09-450-443E-12	Sequence 12, Appl
22	40	69.0	9	4	US-09-450-443E-14	Sequence 14, Appl
23	40	69.0	9	4	US-09-450-443E-16	Sequence 16, Appl
24	40	69.0	9	4	US-09-450-443E-18	Sequence 18, Appl
25	40	69.0	9	4	US-09-450-443E-20	Sequence 20, Appl
26	40	69.0	9	4	US-09-450-443E-22	Sequence 22, Appl
27	40	69.0	9	4	US-09-450-443E-31	Sequence 31, Appl
28	40	69.0	9	4	US-09-450-443E-35	Sequence 35, Appl
29	40	69.0	9	4	US-09-450-443E-36	Sequence 36, Appl
30	40	69.0	9	4	US-09-450-443E-37	Sequence 37, Appl
31	38	65.5	9	1	US-07-983-111-2	Sequence 2, Appli
32	38	65.5	9	1	US-07-983-111-4	Sequence 4, Appli
33	38	65.5	9	1	US-07-897-680-2	Sequence 2, Appli
34	38	65.5	9	1	US-08-193-374-2	Sequence 2, Appli
35	38	65.5	9	1	US-08-193-374-4	Sequence 4, Appli
36	38	65.5	9	1	US-08-193-374-5	Sequence 5, Appli
37	38	65.5	9	1	US-08-193-374-6	Sequence 6, Appli
38	38	65.5	9	1	US-08-193-374-9	Sequence 9, Appli
39	38	65.5	9	3	US-09-202-621B-12	Sequence 12, Appl
40	33.5	57.8	9	1	US-08-332-071B-4	Sequence 4, Appli
41	33.5	57.8	9	1	US-08-332-071B-7	Sequence 7, Appli
42	33.5	57.8	9	1	US-08-332-071B-8	Sequence 8, Appli
43	33.5	57.8	9	1	US-08-332-071B-13	Sequence 13, Appl
44	33	56.9	9	1	US-08-193-374-7	Sequence 7, Appli
45	33	56.9	9	3	US-09-202-621B-11	Sequence 11, Appl

ALIGNMENTS

RESULT 1
US-08-341-219-8
; Sequence 8, Application US/08341219
; Patent No. 5643877
; GENERAL INFORMATION:
; APPLICANT: Zohar, Y.
; APPLICANT: Rivier, J.
; APPLICANT: Powell, J.
; APPLICANT: Sherwood, N.
; APPLICANT: Gothilf, Y.
; TITLE OF INVENTION: Compounds and Methods For Controlling
; TITLE OF INVENTION: Reproduction in Fish
; NUMBER OF SEQUENCES: 26
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Pennie & Edmonds
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: N.Y.
; COUNTRY: USA
; ZIP: 10036-2711
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/341,219
; FILING DATE: 05-DEC-1994
; CLASSIFICATION: 514
; ATTORNEY/AGENT INFORMATION:
; NAME: Coruzzi,, Laura A.
; REGISTRATION NUMBER: 30742
; REFERENCE/DOCKET NUMBER: 8399-003-999
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 790-9090
; TELEFAX: (212) 869-8864/9741
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 9 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: unknown
; MOLECULE TYPE: peptide
US-08-341-219-8

Query Match 89.7%; Score 52; DB 1; Length 9;
Best Local Similarity 88.9%; Pred. No. 2.5e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HWSYGLRPG 9

```
              ||||||  ||
Db          1 HWSYGLSPG 9


RESULT 2
US-08-912-314A-8
; Sequence 8, Application US/08912314A
; Patent No. 6210927
;  GENERAL INFORMATION:
;    APPLICANT:  Zohar, Y.
;    APPLICANT:  Rivier, J.
;    APPLICANT:  Powell, J.
;    APPLICANT:  Sherwood, N.
;    APPLICANT:  Gothilf, Y.
;    TITLE OF INVENTION:  Compounds and Methods For Controlling
;    TITLE OF INVENTION:  Reproduction in Fish
;    NUMBER OF SEQUENCES:  26
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Pennie & Edmonds
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  N.Y.
;      COUNTRY:  USA
;      ZIP:  10036-2711
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/912,314A
;      FILING DATE:  30-JUN-1997
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/341,219
;      FILING DATE:  05-DEC-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Coruzzi,, Laura A.
;      REGISTRATION NUMBER:  30742
;      REFERENCE/DOCKET NUMBER:  8399-003-999
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-8864/9741
;  INFORMATION FOR SEQ ID NO:  8:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  9 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  unknown
;    MOLECULE TYPE:  peptide
US-08-912-314A-8

  Query Match             89.7%;  Score 52;  DB 3;  Length 9;
  Best Local Similarity   88.9%;  Pred. No. 2.5e+05;
  Matches    8;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRPG 9
              ||||||  ||
Db          1 HWSYGLSPG 9


RESULT 3
US-08-343-883-2
; Sequence 2, Application US/08343883
; Patent No. 5573767
;  GENERAL INFORMATION:
;    APPLICANT:  Dufour, Raymond J.
;    APPLICANT:  Roulet, Claude J.M.
;    APPLICANT:  Chouvet, Claire D.
;    APPLICANT:  Bonneau, Michel B.
;    TITLE OF INVENTION:  Method for improving the organoleptic
;    TITLE OF INVENTION:  qualities of the meat from uncastrated male domestic
;    TITLE OF INVENTION:  animals, vaccines which are usable in this method, new
;    TITLE OF INVENTION:  peptide, in particular for producing these vaccines...
;    NUMBER OF SEQUENCES:  2
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Larson and Taylor
;      STREET:  727 Twenty-Third Street, South
;      CITY:  Arlington
;      STATE:  Virginia
;      COUNTRY:  USA
;      ZIP:  22202
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/343,883
;      FILING DATE:  17-NOV-1994
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/946,495
;      FILING DATE:  09-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  FR 9102513
;      FILING DATE:  01-MAR-1991
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  FR 9115289
;      FILING DATE:  10-DEC-1991
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  8 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    FEATURE:
;      NAME/KEY:  Peptide
;      LOCATION:  8
;      OTHER INFORMATION:  /label= NH2
;      OTHER INFORMATION:  /note= "amidated glycine"
;    PUBLICATION INFORMATION:
;      AUTHORS:  Schally, A. V.
;      AUTHORS:  Arimura, A.
;      AUTHORS:  Carter, W. H.
;      AUTHORS:  Redding, T. W.
;      AUTHORS:  Geiger, R.
;      AUTHORS:  Konig, W.
;      AUTHORS:  Wissman, H.
;      AUTHORS:  Jaeger, G.
;      AUTHORS:  Sandow, J.
;      AUTHORS:  Yanaihara, N.
;      TITLE:  Luteinizing hormone-relaesing hormone (LH-RH)
;      TITLE:  activity of some synthetic polypeptides. I.
;      TITLE:  Fragments shorter than decapeptide.
;      JOURNAL:  Biochem. Biophys. Res. Commun.
;      VOLUME:  48
;      ISSUE:  2
;      PAGES:  366-375
;      DATE:  1972
;      RELEVANT RESIDUES IN SEQ ID NO:  2: FROM 1 TO 8
US-08-343-883-2

  Query Match             86.2%;  Score 50;  DB 1;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WSYGLRPG 9
              ||||||||
Db          1 WSYGLRPG 8


RESULT 4
5519002-1
;Patent No. 5519002
;    APPLICANT: MIA, ABDUS S.
```

```
;    TITLE OF INVENTION: METHOD AND COMPOSITION FOR
;PREVENTING CONCEPTION
;    NUMBER OF SEQUENCES: 2
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/26,180
;      FILING DATE: 01-MAR-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER: 697,127
;      FILING DATE: 08-MAY-1991
;      APPLICATION NUMBER: 250,557
;      FILING DATE: 29-SEP-1988
;SEQ ID NO:1:
;      LENGTH: 9
5519002-1

  Query Match             86.2%;  Score 50;  DB 6;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 WSYGLRPG 9
              ||||||||
Db          2 WSYGLRPG 9


RESULT 5
US-09-450-443E-10
; Sequence 10, Application US/09450443E
; Patent No. 6586402
; GENERAL INFORMATION:
;  APPLICANT: DELANSORNE, Remi
;  APPLICANT:  PARIS, Jacques
;  TITLE OF INVENTION: LH-RH peptide analogues, their uses and pharmaceutical
;  TITLE OF INVENTION:  compositions containing them
;  FILE REFERENCE: H20058-4US
;  CURRENT APPLICATION NUMBER: US/09/450,443E
;  CURRENT FILING DATE:  1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/EP98/02802
;  PRIOR FILING DATE: 1998-05-06
;  PRIOR APPLICATION NUMBER: EP97401212.2
;  PRIOR FILING DATE: 1997-06-02
;  NUMBER OF SEQ ID NOS: 39
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: LH-RH analogue
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (1)
;   OTHER INFORMATION: Xaa is pGlu
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (7)
;   OTHER INFORMATION: Xaa is Npg
US-09-450-443E-10

  Query Match             81.0%;  Score 47;  DB 4;  Length 9;
  Best Local Similarity   87.5%;  Pred. No. 2.5e+05;
  Matches    7;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRP 8
              ||||| ||
Db          2 HWSYGXRP 9


RESULT 6
US-08-591-917-2
; Sequence 2, Application US/08591917
; Patent No. 5707964
;  GENERAL INFORMATION:
;    APPLICANT:  Nett, Torrance M
;    APPLICANT:  Glode, Leonard Michael
;    TITLE OF INVENTION:  A METHOD FOR TREATING CANCER
;    NUMBER OF SEQUENCES:  3
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Sheridan Ross & McIntosh
;      STREET:  1700 Lincoln Street, Suite 3500
;      CITY:  Denver
;      STATE:  Colorado
;      COUNTRY:  USA
;      ZIP:  80203
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/591,917
;      FILING DATE:  26-JAN-1996
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Kovarik, Joseph E.
;      REGISTRATION NUMBER:  33,005
;      REFERENCE/DOCKET NUMBER:  2730-3-2-1-1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (303) 863-9700
;      TELEFAX:  (303) 863-0223
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  9 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-591-917-2

  Query Match             77.6%;  Score 45;  DB 1;  Length 9;
  Best Local Similarity   87.5%;  Pred. No. 2.5e+05;
  Matches    7;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRP 8
              |||| |||
Db          2 HWSYXLRP 9


RESULT 7
US-09-309-828-3
; Sequence 3, Application US/09309828
; Patent No. 6566494
; GENERAL INFORMATION:
;  APPLICANT: Jensen, Knud J.
;  APPLICANT:  Barany, George
;  APPLICANT:  Songster, Micheal F.
;  APPLICANT:  Albericio, Fernando
;  APPLICANT:  Alsina, Jordi
;  APPLICANT:  Vagner, Josef
;  TITLE OF INVENTION: SUPPORT MATERIAL FOR SOLID PHASE ORGANIC SYNTHESIS
;  FILE REFERENCE: 110.00220102
;  CURRENT APPLICATION NUMBER: US/09/309,828
;  CURRENT FILING DATE:  1999-05-11
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:Des-Gly10,
;   OTHER INFORMATION: methylamide9-LHRH
;   NAME/KEY: SITE
;   LOCATION: (1)
;   OTHER INFORMATION: pGlu
;   NAME/KEY: SITE
;   LOCATION: (9)
;   OTHER INFORMATION: Pro-NH-Me
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US-09-309-828-3

Query Match 77.6%; Score 45; DB 4; Length 9;
Best Local Similarity 100.0%; Pred. No. 2.5e+05;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HWSYGLR 7
|||||||
Db 2 HWSYGLR 8

RESULT 8
US-09-309-828-4
; Sequence 4, Application US/09309828
; Patent No. 6566494
; GENERAL INFORMATION:
; APPLICANT: Jensen, Knud J.
; APPLICANT: Barany, George
; APPLICANT: Songster, Micheal F.
; APPLICANT: Albericio, Fernando
; APPLICANT: Alsina, Jordi
; APPLICANT: Vagner, Josef
; TITLE OF INVENTION: SUPPORT MATERIAL FOR SOLID PHASE ORGANIC SYNTHESIS
; FILE REFERENCE: 110.00220102
; CURRENT APPLICATION NUMBER: US/09/309,828
; CURRENT FILING DATE: 1999-05-11
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:Des-Gly10,
; OTHER INFORMATION: ethylamide9-LHRH
; NAME/KEY: SITE
; LOCATION: (1)
; OTHER INFORMATION: pGlu
; NAME/KEY: SITE
; LOCATION: (9)
; OTHER INFORMATION: Pro-NHEt
US-09-309-828-4

Query Match 77.6%; Score 45; DB 4; Length 9;
Best Local Similarity 100.0%; Pred. No. 2.5e+05;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HWSYGLR 7
|||||||
Db 2 HWSYGLR 8

RESULT 9
5488036-2
;Patent No. 5488036
; APPLICANT: NETT, TORRANCE M.;GLODE, LEONARD M.
; TITLE OF INVENTION: METHOD FOR STERILIZING ANIMALS USING
;HORMONE-TOXIN CONJUGATE COMPOUNDS
; NUMBER OF SEQUENCES: 5
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/94,625
; FILING DATE: 20-JUL-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 837,639
; FILING DATE: 14-FEB-1992
; APPLICATION NUMBER: 314,653
; FILING DATE: 23-FEB-1992
;SEQ ID NO:2:
; LENGTH: 9
5488036-2

Query Match 77.6%; Score 45; DB 6; Length 9;
Best Local Similarity 87.5%; Pred. No. 2.5e+05;
Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HWSYGLRP 8
|||| |||
Db 2 HWSYXLRP 9

RESULT 10
US-08-871-689-2
; Sequence 2, Application US/08871689
; Patent No. 5955080
; GENERAL INFORMATION:
; APPLICANT: REILLY, WAYNE G.
; APPLICANT: WHITTAKER, ROBERT G.
; APPLICANT: JENNINGS, PHILLIP A.
; APPLICANT: FINNEY, KENNETH G.
; TITLE OF INVENTION: SELF-ADJUVANTING PEPTIDE VACCINE
; TITLE OF INVENTION: DELIVERY SYSTEM AND PRODUCTION THEREOF
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: LOWE, PRICE, LEBLANC & BECKER
; STREET: 99 CANAL CENTER PLAZA, SUITE 300
; CITY: ALEXANDRIA
; STATE: VIRGINIA
; COUNTRY: U.S
; ZIP: 22314
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/871,689
; FILING DATE: 09-JUN-1997
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/185,878
; FILING DATE: 03-MAY-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: MILLS, DEMETRA J.
; REGISTRATION NUMBER: 34,506
; REFERENCE/DOCKET NUMBER: 1451-004
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 703-684-1111
; TELEFAX: 703-684-1124
; TELEX: AMERPAT
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHETICAL: NO
; ANTI-SENSE: NO
US-08-871-689-2

Query Match 75.9%; Score 44; DB 2; Length 7;
Best Local Similarity 100.0%; Pred. No. 2.5e+05;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 WSYGLRP 8
|||||||
Db 1 WSYGLRP 7

RESULT 11
US-08-188-918-2
; Sequence 2, Application US/08188918
; Patent No. 5480656
; GENERAL INFORMATION:
; APPLICANT: OKADA, Hiroaki
; APPLICANT: INOUE, Yayoi

```
;    APPLICANT:  OGAWA, Yasuaki
;    TITLE OF INVENTION:  PROLONGED RELEASE MICROCAPSULES
;    NUMBER OF SEQUENCES:  2
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  WEGNER, CANTOR, MUELLER & PLAYER
;      STREET:  1233 20th Street, N.W., Suite 300
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  U.S.A.
;      ZIP:  20036-8218
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  COMPAQ 286 IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/188,918
;      FILING DATE:  31-JAN-1994
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 033133-1990
;      FILING DATE:  02-FEB-1990
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  MUELLER, Douglas P.
;      REGISTRATION NUMBER:  30,300
;      REFERENCE/DOCKET NUMBER:  P8700-22697A
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202) 887-0400
;      TELEFAX:  (202) 835-0605
;      TELEX:  440706 WEGBR
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  9 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-188-918-2

  Query Match             75.9%;  Score 44;  DB 1;  Length 9;
  Best Local Similarity   87.5%;  Pred. No. 2.5e+05;
  Matches    7;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRP 8
              |||| |||
Db          2 HWSYWLRP 9


RESULT 12
US-08-591-917-3
; Sequence 3, Application US/08591917
; Patent No. 5707964
;  GENERAL INFORMATION:
;    APPLICANT:  Nett, Torrance M
;    APPLICANT:  Glode, Leonard Michael
;    TITLE OF INVENTION:  A METHOD FOR TREATING CANCER
;    NUMBER OF SEQUENCES:  3
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Sheridan Ross & McIntosh
;      STREET:  1700 Lincoln Street, Suite 3500
;      CITY:  Denver
;      STATE:  Colorado
;      COUNTRY:  USA
;      ZIP:  80203
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/591,917
;      FILING DATE:  26-JAN-1996
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Kovarik, Joseph E.
;      REGISTRATION NUMBER:  33,005
;      REFERENCE/DOCKET NUMBER:  2730-3-2-1-1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (303) 863-9700
;      TELEFAX:  (303) 863-0223
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  9 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-591-917-3

  Query Match             75.9%;  Score 44;  DB 1;  Length 9;
  Best Local Similarity   87.5%;  Pred. No. 2.5e+05;
  Matches    7;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRP 8
              |||| |||
Db          2 HWSYKLRP 9


RESULT 13
5488036-3
;Patent No. 5488036
;    APPLICANT: NETT, TORRANCE M.;GLODE, LEONARD M.
;    TITLE OF INVENTION: METHOD FOR STERILIZING ANIMALS USING
;HORMONE-TOXIN CONJUGATE COMPOUNDS
;    NUMBER OF SEQUENCES: 5
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/94,625
;      FILING DATE: 20-JUL-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER: 837,639
;      FILING DATE: 14-FEB-1992
;      APPLICATION NUMBER: 314,653
;      FILING DATE: 23-FEB-1992
;SEQ ID NO:3:
;      LENGTH: 9
5488036-3

  Query Match             75.9%;  Score 44;  DB 6;  Length 9;
  Best Local Similarity   87.5%;  Pred. No. 2.5e+05;
  Matches    7;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRP 8
              |||| |||
Db          2 HWSYKLRP 9


RESULT 14
US-08-188-918-1
; Sequence 1, Application US/08188918
; Patent No. 5480656
;  GENERAL INFORMATION:
;    APPLICANT:  OKADA, Hiroaki
;    APPLICANT:  INOUE, Yayoi
;    APPLICANT:  OGAWA, Yasuaki
;    TITLE OF INVENTION:  PROLONGED RELEASE MICROCAPSULES
;    NUMBER OF SEQUENCES:  2
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  WEGNER, CANTOR, MUELLER & PLAYER
;      STREET:  1233 20th Street, N.W., Suite 300
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  U.S.A.
;      ZIP:  20036-8218
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  COMPAQ 286 IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
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;       SOFTWARE:  PatentIn Release #1.0, Version #1.25
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/188,918
;       FILING DATE:  31-JAN-1994
;       CLASSIFICATION:  424
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  JP 033133-1990
;       FILING DATE:  02-FEB-1990
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  MUELLER, Douglas P.
;       REGISTRATION NUMBER:  30,300
;       REFERENCE/DOCKET NUMBER:  P8700-22697A
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (202) 887-0400
;       TELEFAX:  (202) 835-0605
;       TELEX:  440706 WEGBR
;   INFORMATION FOR SEQ ID NO:  1:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  9 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  peptide
;     FEATURE:
;       NAME/KEY:  Modified-site
;       LOCATION:  6
;       OTHER INFORMATION:  /label= D-aminoacid
;       OTHER INFORMATION:  /note= "D-aminoacid at position 6"
US-08-188-918-1

  Query Match             72.4%;  Score 42;  DB 1;  Length 9;
  Best Local Similarity   87.5%;  Pred. No. 2.5e+05;
  Matches    7;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 HWSYGLRP 8
              |||| |||
Db          2 HWSYLLRP 9


RESULT 15
US-09-082-279B-1000
; Sequence 1000, Application US/09082279B
; Patent No. 6258782
; GENERAL INFORMATION:
;  APPLICANT:  Barney, Shawn
;  APPLICANT:  Guthrie, Kelly
;  APPLICANT:  Merutka, Gene
;  APPLICANT:  Anwer, Mohmed
;  APPLICANT:  Lambert, Dennis
;  TITLE OF INVENTION:  HYBRID POLYPEPTIDES WITH ENHANCED
;  TITLE OF INVENTION:  PHARMACOKINETIC PROPERTIES
;  FILE REFERENCE:  7872-043
;  CURRENT APPLICATION NUMBER: US/09/082,279B
;  CURRENT FILING DATE:  1998-05-20
;  NUMBER OF SEQ ID NOS:  1515
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 1000
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Core polypeptide
US-09-082-279B-1000

  Query Match             71.6%;  Score 41.5;  DB 3;  Length 8;
  Best Local Similarity   88.9%;  Pred. No. 2.5e+05;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    1;  Gaps    1;

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Db          1 HWSY-LRPG 8
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Job time : 15 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

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(without alignments)
30.971 Million cell updates/sec

Title: US-09-462-089-3
Perfect score: 50
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Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 102276

Minimum DB seq length: 0
Maximum DB seq length: 8

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	50	100.0	8	6	AAP50692	Sequence of gonado
2	50	100.0	8	13	AAR26733	Immunogenic LHRH(3
3	50	100.0	8	20	AAW94892	LHRH peptide fragm
4	50	100.0	8	21	AAB15364	Human LHRH peptide
5	44	88.0	7	14	AAR32891	Self adjuvanating
6	44	88.0	8	24	ABP96550	Gonadotrophin rele
7	40	80.0	7	14	AAR32893	Self adjuvanating
8	39	78.0	7	22	AAB90982	Luteinising hormon
9	38	76.0	7	6	AAP50693	Sequence of gonado
10	38	76.0	8	22	AAB90976	Luteinising hormon
11	36	72.0	7	12	AAR11091	LHRH pseudopeptide
12	36	72.0	7	12	AAR11092	LHRH pseudopeptide
13	36	72.0	8	12	AAR11090	LHRH pseudopeptide
14	36	72.0	8	23	AAU76988	Luteinizing hormon
15	36	72.0	8	24	ABP96549	Gonadotrophin rele
16	35	70.0	8	23	AAU76990	Luteinizing hormon
17	33.5	67.0	8	22	ABB02473	Viral core polypep
18	33.5	67.0	8	23	AAU76986	Luteinizing hormon
19	32	64.0	6	19	AAW40927	Leader sequence 46
20	32	64.0	7	19	AAW45796	Luteinising hormon
21	31	62.0	7	2	AAP10514	LH and FSH releasi
22	31	62.0	7	2	AAP10515	LH and FSH releasi
23	31	62.0	7	14	AAR32892	Self adjuvanating
24	31	62.0	7	16	AAR90235	N-(3-indolylpropio
25	31	62.0	8	18	AAW16395	Gonadotropin relea
26	28	56.0	5	13	AAR28240	Alpha-substituted
27	28	56.0	5	13	AAR28241	Alpha-substituted
28	28	56.0	5	13	AAR28242	Alpha-substituted
29	28	56.0	5	15	AAR53131	Cholecystokinin an
30	28	56.0	5	15	AAR53132	Cholecystokinin an
31	28	56.0	5	15	AAR53133	Cholecystokinin an
32	28	56.0	7	20	AAY14637	PTK conserved pept
33	28	56.0	7	20	AAY14645	PTK conserved pept
34	28	56.0	7	20	AAY14713	PTK conserved pept
35	28	56.0	7	20	AAY14717	PTK conserved pept
36	28	56.0	7	20	AAY14723	PTK conserved pept
37	28	56.0	7	20	AAY14701	PTK conserved pept
38	28	56.0	7	20	AAY14707	PTK conserved pept
39	28	56.0	7	20	AAY14653	PTK conserved pept
40	28	56.0	7	20	AAY14629	PTK conserved pept
41	27.5	55.0	7	23	AAU76983	Luteinizing hormon
42	27.5	55.0	7	23	AAU76985	Luteinizing hormon
43	27.5	55.0	7	23	AAU76987	Luteinizing hormon
44	27.5	55.0	7	23	AAU76989	Luteinizing hormon
45	27	54.0	6	12	AAR11089	LHRH pseudopeptide

ALIGNMENTS

RESULT 1
AAP50692
ID AAP50692 standard; peptide; 8 AA.
XX
AC AAP50692;
XX
DT 16-AUG-2002 (updated)
DT 16-OCT-1991 (first entry)
XX
DE Sequence of gonadorelin peptide intermediate.
XX
KW Gonadorelin; hormone; luteinising hormone releasing hormone.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /note= "bonded to urethane-protecting gp."
FT Modified-site 8
FT /label= Gly-NH2
XX
PN EP156280-A.
XX
PD 02-OCT-1985.
XX
PF 18-MAR-1985; 85EP-0103106.
XX
PR 27-MAR-1984; 84DE-3411224.
XX
PA (FARH) HOECHST AG.
XX
PI Uhmann R, Radscheit K;

XX
DR WPI; 1985-243923/40.
XX
PT Prodn. of gonadorelin peptide intermediates without racemisation
PT - from new protected tryptophan tri:peptide derivs.
XX
PS Claim 4; Page 23; 28pp; German.
XX
CC The peptides of the invention are intermediates for the synthesis of
CC gonadorelin (luteinising hormone releasing hormone) and its
CC analogues (see e.g. US 4024248).
CC (Updated on 16-AUG-2002 to add missing OS field.)
XX
SQ Sequence 8 AA;

Query Match 100.0%; Score 50; DB 6; Length 8;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WSYGLRPG 8
||||||||
Db 1 WSYGLRPG 8

RESULT 2
AAR26733
ID AAR26733 standard; peptide; 8 AA.
XX
AC AAR26733;
XX
DT 25-MAR-2003 (updated)
DT 11-FEB-1993 (first entry)
XX
DE Immunogenic LHRH(3-10).
XX
KW Immunoneutralisation; luteinising hormone releasing hormone; GnRH;
KW gonadoliberin; castration.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 8
FT /note= "amidated"
XX
PN EP501882-A2.
XX
PD 02-SEP-1992.
XX
PF 26-FEB-1992; 92EP-0400496.
XX
PR 01-MAR-1991; 91FR-0002513.
PR 10-DEC-1991; 91FR-0015289.
XX
PA (INMR) RHONE MERIEUX SA.
XX
PI Bonneau MB, Chouvet C, Dufour R, Roulet C;
XX
DR WPI; 1992-294301/36.
XX
PT Improving meat quality of intact male animals - by
PT immuno:neutralisation, shortly before slaughter, of steroid with
PT anti-LHRH, esp. induced by two=stage vaccination
XX
PS Claim 22; Page 17; 18pp; French.
XX
CC LHRH(3-10) is highly immunogenic but lacks the hormonal properties
CC of natural LHRH. Conjugates of the peptide with an immunogenic
CC carrier protein can be used as an anti-LHRH vaccine. (An alpha-
CC globulin/LHRH conjugate can also be used as anti-LHRH vaccine). The
CC vaccines are administered shortly before slaughter to suppress the
CC action of androgenic and non-androgenic hormones in non-castrated
CC male animals. This allows the advantages associated with the male
CC character (greater weight gain, more efficient feed utilisation and
CC leaber carcasses) to be retained practically up to the time of
CC slaughter. The treatment does not induce any local reactions which
CC could result in the meat being rejected on grounds of quality.
CC (Updated on 25-MAR-2003 to correct PN field.)
CC (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 8 AA;

Query Match 100.0%; Score 50; DB 13; Length 8;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WSYGLRPG 8
||||||||
Db 1 WSYGLRPG 8

RESULT 3
AAW94892
ID AAW94892 standard; peptide; 8 AA.
XX
AC AAW94892;
XX
DT 11-MAY-1999 (first entry)
XX
DE LHRH peptide fragment.
XX
KW LHRH; immune response; luteinising hormone releasing hormone; DT;
KW diphtheria toxoid; castrating; oestrus cycling; aggression; breast;
KW sexual activity; organoleptic; livestock; cell growth; malignant;
KW prostate; ovarian; oncofoetal; hyperplastic; pregnancy;
KW endometriosis; inflammatory response.
XX
OS Homo sapiens.
XX
PN WO9902180-A1.
XX
PD 21-JAN-1999.
XX
PF 09-JUL-1998; 98WO-AU00532.
XX
PR 09-JUL-1997; 97AU-0007768.
XX
PA (CSLC-) CSL LTD.
XX
PI McNamara MK;
XX
DR WPI; 1999-120511/10.
XX
PT New immunogenic leutenising hormone releasing hormone compositions -
PT comprise LHRH conjugated to diphtheria toxoid and adsorbed to an
PT ionic polysaccharide, used to inhibit reproductive function in
PT animals
XX
PS Examples; Page 30; 41pp; English.
XX
CC The invention relates immunogenic composition for eliciting an immune
CC response to luteinising hormone releasing hormone (LHRH). The
CC composition comprises a LHRH-diphtheria toxoid (DT) conjugate adsorbed to
CC an ionic polysaccharide. The LHRH-DT compositions can be used for
CC eliciting an immune response to LHRH, for castrating an animal, for
CC regulating oestrus cycling in a female animal or for inhibiting
CC characteristics induced by the sexual maturation of an animal, e.g.
CC aggression or sexual activity. They can also be used for achieving
CC production gains in livestock, e.g. reduction or elimination of unwanted
CC organoleptic characteristics from the meat of livestock. They can also be
CC used for inhibiting the growth of cells which are regulated directly or
CC indirectly by LHRH, e.g. malignant breast cells, malignant prostate
CC cells, malignant ovarian cells, malignant oncofoetal cells or
CC hyperplastic cells. They can also be used for down-regulating the libido
CC of an animal. They can also be used for inhibiting pregnancy, prostate
CC enlargement, endometriosis or inflammatory responses. The LHRH
CC compositions induce a more effective immune response against LHRH than

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CC   the LHRH-carrier-adjuvant compositions. The effective immune response
CC   against LHRH results in prevention of the release of the hormones LH and
CC   FSH from the anterior pituitary. Sequences AAW94890-93 are peptide
CC   derivatives of LHRH.
XX
SQ   Sequence   8 AA;

  Query Match             100.0%;  Score 50;  DB 20;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGLRPG 8
              ||||||||
Db          1 WSYGLRPG 8


RESULT 4
AAB15364
ID   AAB15364 standard; peptide; 8 AA.
XX
AC   AAB15364;
XX
DT   17-JAN-2001  (first entry)
XX
DE   Human LHRH peptide SEQ ID NO: 3.
XX
KW   Human; LHRH; GnRH; luteinising hormone releasing hormone;
KW   gonadotrophin releasing hormone; fertility control; cancer;
KW   endometriosis; prostate enlargement.
XX
OS   Homo sapiens.
XX
PN   WO200041720-A1.
XX
PD   20-JUL-2000.
XX
PF   24-DEC-1999;   99WO-AU01167.
XX
PR   08-JAN-1999;   99AU-0008073.
XX
PA   (CSLC-) CSL LTD.
XX
PI   Walker J;
XX
DR   WPI; 2000-475954/41.
XX
PT   Adjuvant composition for manufacturing an immunogenic composition that
PT   can elicit an immune response in an animal, comprises an ionic
PT   polysaccharide component and a saponin component that is an
PT   immunostimulating complex -
XX
PS   Disclosure; Page 50; 53pp; English.
XX
CC   The present sequence is a peptide fragment of human luteinising hormone
CC   releasing hormone (also known as LHRH, GnRH and gonadotrophin releasing
CC   hormone). It was used to demonstrate the novel adjuvant of the invention,
CC   which has lower reactogenicity then previous compositions. Vaccination of
CC   humans and animals against LHRH can be used as a method of fertility
CC   control, as well as enabling the control and treatment of disorders of
CC   the reproductive organs, such as testicular, breast, prostate and ovarian
CC   cancers, prostate enlargement and endometriosis. The composition of the
CC   invention contains an anionic macromolecule and a saponin component, the
CC   latter of which is an immunostimulant, and it can also be used with other
CC   immunogens including soluble protein antigens, peptide haptens conjugated
CC   to a carrier protein and whole viruses.
XX
SQ   Sequence   8 AA;

  Query Match             100.0%;  Score 50;  DB 21;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGLRPG 8
              ||||||||
Db          1 WSYGLRPG 8


RESULT 5
AAR32891
ID   AAR32891 standard; peptide; 7 AA.
XX
AC   AAR32891;
XX
DT   25-MAR-2003  (updated)
DT   15-JUN-1993  (first entry)
XX
DE   Self adjuvanating vaccine LHRH peptide.
XX
KW   Luteinising hormone releasing hormone; chemical sterilisation;
KW   antibody response; AIDS; malaria; cancer; breast; prostate;
KW   endometrial; ovarian.
XX
OS   Synthetic.
XX
PN   WO9302706-A1.
XX
PD   18-FEB-1993.
XX
PF   24-JUL-1992;   92WO-AU00377.
XX
PR   26-JUL-1991;   91AU-0007457.
XX
PA   (CSIR ) COMMONWEALTH SCI & IND RES ORG.
XX
PI   Finney KG,  Jennings PA,  Reilly WG,  Whittaker RG;
XX
DR   WPI; 1993-076183/09.
XX
PT   Self-adjuvanating vaccines - comprises peptide conjugated to
PT   fatty acids and carrier, useful for treating prostate, breast,
PT   endometrial and ovarian cancers, etc.
XX
PS   Claim 7; Page 15; 37pp; English.
XX
CC   The sequence is that of a luteinising hormone releasing hormone (LHRH)
CC   peptide which can be used as part of a self adjuvanating vaccine for
CC   raising antibodies to the LHRH peptide. The vaccine may be used in
CC   the chemical sterilisation of animals and for treating breast,
CC   prostate, endometrial and ovarian cancer. Using peptide epitopes of
CC   AIDS, malaria, influenza, hepatitis or zona pellucida the vaccine
CC   can be used to enhance the immune response of an animal to the antigen
CC   e.g. AIDS, malaria, etc.
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence   7 AA;

  Query Match             88.0%;  Score 44;  DB 14;  Length 7;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    7;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGLRP 7
              |||||||
Db          1 WSYGLRP 7


RESULT 6
ABP96550
ID   ABP96550 standard; peptide; 8 AA.
XX
AC   ABP96550;
XX
DT   27-MAY-2003  (first entry)
XX
DE   Gonadotrophin releasing hormone agonist gonadrelin peptide.
XX
KW   Gonadotrophin releasing hormone agonist; GnRH agonist; combination drug;
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KW   pharmaceutical; breast cancer; endometriosis; myometrium tumour;
KW   Alzheimer's disease; circulatory system disorder; menopausal disorder;
KW   irregular period; cancer metastasis; premenstrual syndrome; osteopathy;
KW   muscular distress; calcium/phosphorus imbalance; SERM; gynaecological;
KW   selective oestrogen receptor modulator; cytostatic; nootropic; muscular;
KW   neuroprotective; cardiovascular; endocrine; osteopathic; prostatomegally;
KW   prostate cancer.
XX
OS   Synthetic.
XX
PN   WO2003015820-A1.
XX
PD   27-FEB-2003.
XX
PF   08-AUG-2002; 2002WO-JP08130.
XX
PR   10-AUG-2001; 2001JP-0244616.
XX
PA   (TAKE ) TAKEDA CHEM IND LTD.
XX
PI   Furuya S,  Kusaka M;
XX
DR   WPI; 2003-300573/29.
XX
PT   Pharmaceutical composition e.g. for breast cancer comprises
PT   gonadotrophin releasing hormone agonist and selective estrogen receptor
PT   modulator  -
XX
PS   Disclosure; Page 9; 73pp; Japanese.
XX
CC   The present invention describes a pharmaceutical composition (I) for
CC   treating breast cancer, endometriosis, myometrium tumour, Alzheimer's
CC   disease, circulatory system disorders, menopausal disorders, irregular
CC   periods, cancer metastasis, premenstrual syndrome, muscular distress or
CC   osteopathies due to calcium/phosphorus imbalance. (I) comprises a
CC   gonadotrophin releasing hormone (GnRH) agonist and a selective oestrogen
CC   receptor modulator (SERM). (I) has cytostatic, gynaecological, nootropic,
CC   neuroprotective, cardiovascular, endocrine, muscular and osteopathic
CC   activities. (I) can be used as GnRH agonists used in combination with
CC   selective oestrogen receptor modulators, selective androgen receptor
CC   modulators, sex hormone synthesis inhibitors, lyase inhibitors,
CC   receptor-type tyrosine kinase inhibitors, bone metabolism regulators,
CC   immunotherapy drugs, cytokine/chemokine inhibitors or endothelin receptor
CC   antagonists for treating and preventing endometriosis, myometrium tumour,
CC   Alzheimer's disease, circulatory system disorders, menopausal disorders,
CC   irregular periods, cancer metastasis, premenstrual syndrome, muscular
CC   distress, osteopathies due to calcium/phosphorus imbalance,
CC   prostatomegally or prostate cancer or breast cancer or their reoccurrence
CC   or metastasis. Combination enhances the quality of life by enhancing
CC   GnRH agonist activity and/or reducing side effects. The present sequence
CC   represents a GnRH agonist related peptide which is given in the present
CC   invention.
XX
SQ   Sequence   8 AA;

  Query Match             88.0%;  Score 44;  DB 24;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    7;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGLRP 7
              |||||||
Db          2 WSYGLRP 8


RESULT 7
AAR32893
ID   AAR32893 standard; peptide; 7 AA.
XX
AC   AAR32893;
XX
DT   25-MAR-2003  (updated)
DT   15-JUN-1993  (first entry)
XX
DE   Self adjuvanating vaccine LHRH peptide.
XX
KW   Luteinising hormone releasing hormone; chemical sterilisation;
KW   antibody response; AIDS; malaria; cancer; breast; prostate;
KW   endometrial; ovarian.
XX
OS   Synthetic.
XX
PN   WO9302706-A1.
XX
PD   18-FEB-1993.
XX
PF   24-JUL-1992;   92WO-AU00377.
XX
PR   26-JUL-1991;   91AU-0007457.
XX
PA   (CSIR ) COMMONWEALTH SCI & IND RES ORG.
XX
PI   Finney KG,  Jennings PA,  Reilly WG,  Whittaker RG;
XX
DR   WPI; 1993-076183/09.
XX
PT   Self-adjuvanating vaccines - comprises peptide conjugated to
PT   fatty acids and carrier, useful for treating prostate, breast,
PT   endometrial and ovarian cancers, etc.
XX
PS   Claim 7; Page 15; 37pp; English.
XX
CC   The sequence is that of a luteinising hormone releasing hormone (LHRH)
CC   peptide which can be used as part of a self adjuvanating vaccine for
CC   raising antibodies to the LHRH peptide. The vaccine may be used in
CC   the chemical sterilisation of animals and for treating breast,
CC   prostate, endometrial and ovarian cancer. Using peptide epitopes of
CC   AIDS, malaria, influenza, hepatitis or zona pellucida the vaccine
CC   can be used to enhance the immune response of an animal to the antigen
CC   e.g. AIDS, malaria, etc.
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence   7 AA;

  Query Match             80.0%;  Score 40;  DB 14;  Length 7;
  Best Local Similarity   85.7%;  Pred. No. 9.3e+05;
  Matches    6;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGLRP 7
              |||||:|
Db          1 WSYGLQP 7


RESULT 8
AAB90982
ID   AAB90982 standard; Peptide; 7 AA.
XX
AC   AAB90982;
XX
DT   22-JUN-2001  (first entry)
XX
DE   Luteinising hormone releasing hormone (LH-RH) related peptide SEQ ID:156.
XX
KW   Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW   blood component; modification; succinimidyl; maleimido group; amino;
KW   hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200069900-A2.
XX
PD   23-NOV-2000.
XX
PF   17-MAY-2000; 2000WO-US13576.
XX
PR   17-MAY-1999;   99US-0134406.
```

PR 10-SEP-1999; 99US-0153406.
PR 15-OCT-1999; 99US-0159783.
XX
PA (CONJ-) CONJUCHEM INC.
XX
PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;
XX
DR WPI; 2001-112059/12.
XX
PT Modifying and attaching therapeutic peptides to albumin prevents
PT peptidase degradation, useful for increasing length of in vivo activity
PT -
XX
PS Disclosure; Page 241; 733pp; English.
XX
CC The present invention describes a modified therapeutic peptide (I)
CC comprising a therapeutically active amino acid region (III) and a
CC reactive group (II) (e.g. succinimidyl and maleimido groups) attached to
CC a less therapeutically active amino acid region (IV), which covalently
CC bonds with amino/hydroxyl/thiol groups on blood components to form a
CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
CC factors and neurotransmitters, to protect them from peptidase activity
CC in vivo for the treatment of various disorders. Endogenous therapeutic
CC peptides are not suitable as drug candidates as they require frequent
CC administration due to rapid degradation by peptidases in the body.
CC Modifying and attaching therapeutic peptides to albumin prevents or
CC reduces the action of peptidases to increase length of activity (half
CC life) and specificity as bonding to large molecules decreases
CC intracellular uptake and interference with physiological processes.
CC AAB90829 to AAB92441 represent peptides which can be used in the
CC exemplification of the present invention.
XX
SQ Sequence 7 AA;

Query Match 78.0%; Score 39; DB 22; Length 7;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 SYGLRPG 8
|||||||
Db 1 SYGLRPG 7

RESULT 9
AAP50693
ID AAP50693 standard; peptide; 7 AA.
XX
AC AAP50693;
XX
DT 16-AUG-2002 (updated)
DT 16-OCT-1991 (first entry)
XX
DE Sequence of gonadorelin peptide intermediate.
XX
KW Gonadorelin; hormone; luteinising hormone releasing hormone.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /note= "bonded to urethane-protecting gp."
FT Misc-difference 4
FT /label= D-Ser(But)
FT Modified-site 7
FT /label= Pro-NHC2H5
XX
PN EP156280-A.
XX
PD 02-OCT-1985.
XX
PF 18-MAR-1985; 85EP-0103106.
XX
PR 27-MAR-1984; 84DE-3411224.
XX
PA (FARH) HOECHST AG.
XX
PI Uhmann R, Radscheit K;
XX
DR WPI; 1985-243923/40.
XX
PT Prodn. of gonadorelin peptide intermediates without racemisation
PT - from new protected tryptophan tri:peptide derivs.
XX
PS Claim 5; Page 23; 28pp; German.
XX
CC The peptides of the invention are intermediates for the synthesis of
CC gonadorelin (luteinising hormone releasing hormone) and its
CC analogues (see e.g. US 4024248).
CC (Updated on 16-AUG-2002 to add missing OS field.)
XX
SQ Sequence 7 AA;

Query Match 76.0%; Score 38; DB 6; Length 7;
Best Local Similarity 85.7%; Pred. No. 9.3e+05;
Matches 6; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 WSYGLRP 7
||| |||
Db 1 WSYSLRP 7

RESULT 10
AAB90976
ID AAB90976 standard; Peptide; 8 AA.
XX
AC AAB90976;
XX
DT 22-JUN-2001 (first entry)
XX
DE Luteinising hormone releasing hormone (LH-RH) related peptide SEQ ID:150.
XX
KW Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW blood component; modification; succinimidyl; maleimido group; amino;
KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200069900-A2.
XX
PD 23-NOV-2000.
XX
PF 17-MAY-2000; 2000WO-US13576.
XX
PR 17-MAY-1999; 99US-0134406.
PR 10-SEP-1999; 99US-0153406.
PR 15-OCT-1999; 99US-0159783.
XX
PA (CONJ-) CONJUCHEM INC.
XX
PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;
XX
DR WPI; 2001-112059/12.
XX
PT Modifying and attaching therapeutic peptides to albumin prevents
PT peptidase degradation, useful for increasing length of in vivo activity
PT -
XX
PS Disclosure; Page 239; 733pp; English.
XX
CC The present invention describes a modified therapeutic peptide (I)
CC comprising a therapeutically active amino acid region (III) and a
CC reactive group (II) (e.g. succinimidyl and maleimido groups) attached to
CC a less therapeutically active amino acid region (IV), which covalently
CC bonds with amino/hydroxyl/thiol groups on blood components to form a

```
CC   peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
CC   (I) are useful for modifying therapeutic peptides e.g. hormones, growth
CC   factors and neurotransmitters, to protect them from peptidase activity
CC   in vivo for the treatment of various disorders. Endogenous therapeutic
CC   peptides are not suitable as drug candidates as they require frequent
CC   administration due to rapid degradation by peptidases in the body.
CC   Modifying and attaching therapeutic peptides to albumin prevents or
CC   reduces the action of peptidases to increase length of activity (half
CC   life) and specificity as bonding to large molecules decreases
CC   intracellular uptake and interference with physiological processes.
CC   AAB90829 to AAB92441 represent peptides which can be used in the
CC   exemplification of the present invention.
XX
SQ   Sequence   8 AA;

  Query Match             76.0%;  Score 38;  DB 22;  Length 8;
  Best Local Similarity   85.7%;  Pred. No. 9.3e+05;
  Matches    6;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 WSYGLRP 7
              ||| |||
Db          2 WSYSLRP 8


RESULT 11
AAR11091
ID   AAR11091 standard; Protein; 7 AA.
XX
AC   AAR11091;
XX
DT   24-MAY-1991  (first entry)
XX
DE   LHRH pseudopeptide analogue #3.
XX
KW   Leutinizing hormone releasing hormone; pseudopeptide; agonist;
KW   antagonist.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= N-3-(4-fluorophenyl)propionyl-D-Trp
FT   Modified-site   2
FT                   /label= N-Me-Ser
FT   Modified-site   4
FT                   /label= N-3-(4-fluorophenyl)propionyl-D-Trp
FT   Modified-site   7
FT                   /label= Pro-NHEt
XX
PN   EP417454-A.
XX
PD   20-MAR-1991.
XX
PF   01-AUG-1990;   90EP-0114752.
XX
PR   10-JUL-1990;   90US-0548511.
PR   07-AUG-1989;   89US-0390269.
XX
PA   (ABBO ) ABBOTT LABORATORIES.
XX
PI   Haviv F,  Palabrica CA,  Greer J,  Fitzpatrick TD;
XX
DR   WPI; 1991-081768/12.
XX
PT   Reduced size Pseudo peptide LHRH analogues - used as LHRH
PT   agonists or antagonists eg in treatment of prostate cancer and
PT   benign prostatic hypertrophy
XX
PS   Claim 4; Page 87; 90pp; English.
XX
CC   This is one of 57 specific examples of highly generic reduced size
CC   LHRH analogues. It is based on amino acid residues 3 to 9
CC   of natural LHRH. The analogues can be used for treating diseases
CC   resulting from gonadal hormone over- or under-production in either
CC   sex, controlling reproduction, as fertility promoters when
CC   administered in pulses or for reducing dihydrotestosterone levels.
CC   See also AAR11089-R11090 and AAR11092-4.
XX
SQ   Sequence   7 AA;

  Query Match             72.0%;  Score 36;  DB 12;  Length 7;
  Best Local Similarity   85.7%;  Pred. No. 9.3e+05;
  Matches    6;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 WSYGLRP 7
              ||| |||
Db          1 WSYWLRP 7


RESULT 12
AAR11092
ID   AAR11092 standard; Protein; 7 AA.
XX
AC   AAR11092;
XX
DT   24-MAY-1991  (first entry)
XX
DE   LHRH pseudopeptide analogue #4.
XX
KW   Leutinizing hormone releasing hormone; pseudopeptide; agonist;
KW   antagonist.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= N-3-(4-fluorophenyl)propionyl-D-Trp
FT   Modified-site   3
FT                   /label= N-Me-Tyr
FT   Modified-site   6
FT                   /label= D-Lys(Nic)
FT   Modified-site   7
FT                   /label= Pro-NHEt
XX
PN   EP417454-A.
XX
PD   20-MAR-1991.
XX
PF   01-AUG-1990;   90EP-0114752.
XX
PR   10-JUL-1990;   90US-0548511.
PR   07-AUG-1989;   89US-0390269.
XX
PA   (ABBO ) ABBOTT LABORATORIES.
XX
PI   Haviv F,  Palabrica CA,  Greer J,  Fitzpatrick TD;
XX
DR   WPI; 1991-081768/12.
XX
PT   Reduced size Pseudo peptide LHRH analogues - used as LHRH
PT   agonists or antagonists eg in treatment of prostate cancer and
PT   benign prostatic hypertrophy
XX
PS   Claim 4; Page 87; 90pp; English.
XX
CC   This is one of 57 specific examples of highly generic reduced size
CC   LHRH analogues. It is based on amino acid residues 3 to 9
CC   of natural LHRH. The analogues can be used for treating diseases
CC   resulting from gonadal hormone over- or under-production in either
CC   sex, controlling reproduction, as fertility promoters when
CC   administered in pulses or for reducing dihydrotestosterone levels.
CC   See also AAR11089-R11091 and AAR11093-4.
XX
SQ   Sequence   7 AA;

  Query Match             72.0%;  Score 36;  DB 12;  Length 7;
```

Best Local Similarity 85.7%; Pred. No. 9.3e+05;
Matches 6; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 WSYGLRP 7
||| |||
Db 1 WSYKLRP 7

RESULT 13
AAR11090
ID AAR11090 standard; Protein; 8 AA.
XX
AC AAR11090;
XX
DT 24-MAY-1991 (first entry)
XX
DE LHRH pseudopeptide analogue #2.
XX
KW Leutinizing hormone releasing hormone; pseudopeptide; agonist;
KW antagonist.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /label= (N-(N-(alpha)-morpholinocarbonyl)-Phe
FT Modified-site 5
FT /label= D-Trp
FT Modified-site 8
FT /label= Pro-NH-Et
XX
PN EP417454-A.
XX
PD 20-MAR-1991.
XX
PF 01-AUG-1990; 90EP-0114752.
XX
PR 10-JUL-1990; 90US-0548511.
PR 07-AUG-1989; 89US-0390269.
XX
PA (ABBO) ABBOTT LABORATORIES.
XX
PI Haviv F, Palabrica CA, Greer J, Fitzpatrick TD;
XX
DR WPI; 1991-081768/12.
XX
PT Reduced size Pseudo peptide LHRH analogues - used as LHRH
PT agonists or antagonists eg in treatment of prostate cancer and
PT benign prostatic hypertrophy
XX
PS Claim 4; Page 86; 90pp; English.
XX
CC This is one of 57 specific examples of highly generic reduced size
CC LHRH analogues. It is based on amino acid residues 2 to 9
CC of natural LHRH. The analogues can be used for treating diseases
CC resulting from gonadal hormone over- or under-production in either
CC sex, controlling reproduction, as fertility promoters when
CC administered in pulses or for reducing dihydrotestosterone levels.
CC See also AAR11089 and AAR11091-4.
XX
SQ Sequence 8 AA;

Query Match 72.0%; Score 36; DB 12; Length 8;
Best Local Similarity 85.7%; Pred. No. 9.3e+05;
Matches 6; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 WSYGLRP 7
||| |||
Db 2 WSYWLRP 8

RESULT 14
AAU76988
ID AAU76988 standard; Peptide; 8 AA.
XX
AC AAU76988;
XX
DT 21-MAY-2002 (first entry)
XX
DE Luteinizing hormone-releasing hormone (LH-RH) agonist, deslorelin.
XX
KW Luteinizing hormone-releasing hormone; LH-RH; cytostatic;
KW gynaecological; sustained release microsphere; biodegradable polymer;
KW hormone dependent disease; pancreatic cancer; prostatic hypertrophy;
KW breast cancer; endometriosis; myome of the uterus;
KW neurogenic precocious puberty; contraceptive; deslorelin.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /label= OTHER
FT /note= "OTHER= His-CO-2-pyrrolidone (The CO group is
FT joined to the 2-pyrrolidone at carbon 5"
FT Modified-site 8
FT /label= OTHER
FT /note= "OTHER= Pro-NH-CH2-CH2-NH2"
XX
PN EP1142567-A2.
XX
PD 10-OCT-2001.
XX
PF 13-DEC-1996; 2001EP-0116787.
XX
PR 15-DEC-1995; 95JP-0327690.
PR 13-DEC-1996; 96EP-0309136.
XX
PA (TAKE) TAKEDA CHEM IND LTD.
XX
PI Takechi N, Ohtani S, Nagai A;
XX
DR WPI; 2002-091561/13.
XX
PT Production of a sustained-release microsphere having physiologically
PT active substance and a biodegradable polymer involves subjecting a
PT water/oil/water or oil/water emulsion to an in-water drying under
PT particular conditions -
XX
PS Disclosure; Page 4; 18pp; English.
XX
CC The invention describes a sustained release microsphere having a
CC physiologically active substance and a biodegradable polymer, obtained
CC by subjecting a water/oil/water or oil/water emulsion to an in-water
CC drying under particular conditions. The physiologically active substance
CC is in an inner aqueous phase and the biodegradable polymer is in an
CC external oil phase. The sustained-release microsphere is useful as a
CC preparation for treatment or prophylaxis of hormone dependent diseases
CC such as pancreatic cancer, prostatic hypertrophy, breast cancer,
CC endometriosis, myome of the uterus and neurogenic precocious puberty or
CC a contraceptive. The method increases the rate of solvent removal from
CC microspheres, reducing the amount of solvent in microspheres in a short
CC time and markedly improves the drug entrapment ratio in microspheres by
CC subjecting the microcapsules to in-water drying. The method is of low
CC toxicity and can be used safely. Microspheres are excellent in
CC workability at the time of collection and in dispersibility and needle
CC passability when they are used as a medicinal injectable preparation.
CC This sequence represents a peptide agonist of the luteinizing
CC hormone-releasing hormone (LH-RH) used in the creation of microspheres
CC described in the invention.
XX
SQ Sequence 8 AA;

Query Match 72.0%; Score 36; DB 23; Length 8;
Best Local Similarity 85.7%; Pred. No. 9.3e+05;
Matches 6; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy          1 WSYGLRP 7
              ||| |||
Db          2 WSYWLRP 8
```

RESULT 15
ABP96549
ID ABP96549 standard; peptide; 8 AA.
XX
AC ABP96549;
XX
DT 27-MAY-2003 (first entry)
XX
DE Gonadotrophin releasing hormone agonist deslorelin peptide.
XX
KW Gonadotrophin releasing hormone agonist; GnRH agonist; combination drug;
KW pharmaceutical; breast cancer; endometriosis; myometrium tumour;
KW Alzheimer's disease; circulatory system disorder; menopausal disorder;
KW irregular period; cancer metastasis; premenstrual syndrome; osteopathy;
KW muscular distress; calcium/phosphorus imbalance; SERM; gynaecological;
KW selective oestrogen receptor modulator; cytostatic; nootropic; muscular;
KW neuroprotective; cardiovascular; endocrine; osteopathic; prostatomegally;
KW prostate cancer.
XX
OS Synthetic.
XX
PN WO2003015820-A1.
XX
PD 27-FEB-2003.
XX
PF 08-AUG-2002; 2002WO-JP08130.
XX
PR 10-AUG-2001; 2001JP-0244616.
XX
PA (TAKE) TAKEDA CHEM IND LTD.
XX
PI Furuya S, Kusaka M;
XX
DR WPI; 2003-300573/29.
XX
PT Pharmaceutical composition e.g. for breast cancer comprises
PT gonadotrophin releasing hormone agonist and selective estrogen receptor
PT modulator -
XX
PS Disclosure; Page 8; 73pp; Japanese.
XX
CC The present invention describes a pharmaceutical composition (I) for
CC treating breast cancer, endometriosis, myometrium tumour, Alzheimer's
CC disease, circulatory system disorders, menopausal disorders, irregular
CC periods, cancer metastasis, premenstrual syndrome, muscular distress or
CC osteopathies due to calcium/phosphorus imbalance. (I) comprises a
CC gonadotrophin releasing hormone (GnRH) agonist and a selective oestrogen
CC receptor modulator (SERM). (I) has cytostatic, gynaecological, nootropic,
CC neuroprotective, cardiovascular, endocrine, muscular and osteopathic
CC activities. (I) can be used as GnRH agonists used in combination with
CC selective oestrogen receptor modulators, selective androgen receptor
CC modulators, sex hormone synthesis inhibitors, lyase inhibitors,
CC receptor-type tyrosine kinase inhibitors, bone metabolism regulators,
CC immunotherapy drugs, cytokine/chemokine inhibitors or endothelin receptor
CC antagonists for treating and preventing endometriosis, myometrium tumour,
CC Alzheimer's disease, circulatory system disorders, menopausal disorders,
CC irregular periods, cancer metastasis, premenstrual syndrome, muscular
CC distress, osteopathies due to calcium/phosphorus imbalance,
CC prostatomegally or prostate cancer or breast cancer or their reoccurrence
CC or metastasis. Combination enhances the quality of life by enhancing
CC GnRH agonist activity and/or reducing side effects. The present sequence
CC represents a GnRH agonist related peptide which is given in the present
CC invention.
XX
SQ Sequence 8 AA;

```
  Query Match             72.0%;  Score 36;  DB 24;  Length 8;
  Best Local Similarity   85.7%;  Pred. No. 9.3e+05;
    Matches    6;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 WSYGLRP 7
              ||| |||
Db          2 WSYWLRP 8
```

Search completed: November 17, 2003, 18:40:33
Job time : 41 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:38:46 ; Search time 20 Seconds
(without alignments)
38.467 Million cell updates/sec

Title: US-09-462-089-3
Perfect score: 50
Sequence: 1 WSYGLRPG 8

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283308 seqs, 96168682 residues

Total number of hits satisfying chosen parameters: 604

Minimum DB seq length: 0
Maximum DB seq length: 8

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	19	38.0	7	2	A60139	fatty-acid synthas
2	19	38.0	8	2	D47393	neuropeptide calla
3	17	34.0	8	2	PH1618	Ig H chain V-D-J r
4	16	32.0	7	4	I55382	hypothetical pepti
5	15	30.0	5	2	PT0281	Ig heavy chain CRD
6	15	30.0	7	2	A33098	244K exoantigen -
7	14	28.0	5	2	JN0862	peptidyl-dipeptida
8	14	28.0	6	4	I79564	hypothetical TCL3
9	14	28.0	7	2	PT0581	T-cell receptor be
10	14	28.0	8	2	S19288	acylase - Kluyvera
11	14	28.0	8	2	S16324	hypothetical prote
12	14	28.0	8	2	S11078	glucose-6-phosphat
13	14	28.0	8	2	JS0318	leucokinin VIII -
14	14	28.0	8	2	PT0311	Ig heavy chain CRD
15	13	26.0	4	2	A34626	RPCH-related neuro
16	13	26.0	4	2	PT0240	Ig heavy chain CRD
17	13	26.0	4	2	S47552	ubiquitin - rat
18	13	26.0	5	2	PQ0689	photosystem I 10.4
19	13	26.0	5	2	B61445	Leu-enkephalin - b
20	13	26.0	5	2	A61445	Met-enkephalin - b
21	13	26.0	5	2	S53595	hypothetical prote
22	13	26.0	5	2	PT0572	T-cell receptor be
23	13	26.0	5	2	PT0714	T-cell receptor be
24	13	26.0	6	2	A35890	RNA-directed DNA p
25	13	26.0	6	2	A61049	halo-toxin - Pseud
26	13	26.0	6	2	PT0715	T-cell receptor be
27	13	26.0	6	4	A35039	hypothetical colla
28	13	26.0	7	2	A60224	Met-enkephalin-Arg
29	13	26.0	7	2	A44428	platelet aggregati
30	13	26.0	7	2	E61491	seed protein ws-5
31	13	26.0	7	2	I48105	dihydrofolate redu
32	13	26.0	7	2	E33932	Ig mu chain D regi
33	13	26.0	7	2	PT0515	T-cell receptor be
34	13	26.0	7	2	PT0654	T-cell receptor be
35	13	26.0	7	2	S66442	glutathione S-tran
36	13	26.0	8	2	A61348	red pigment-concen
37	13	26.0	8	2	A33995	adipokinetic hormo
38	13	26.0	8	2	S55310	adipokinetic hormo
39	13	26.0	8	2	A58620	adipokinetic hormo
40	13	26.0	8	2	PQ0701	unidentified 6.5/3
41	13	26.0	8	2	A46306	spasmogenic toxin
42	13	26.0	8	2	E47393	neuropeptide calla
43	13	26.0	8	2	PT0559	T-cell receptor be
44	12	24.0	4	2	A37832	phenol 2-monooxyge
45	12	24.0	4	2	PT0661	T-cell receptor be

ALIGNMENTS

RESULT 1
A60139
fatty-acid synthase (EC 2.3.1.85) - rabbit (fragment)
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 26-May-2000
C;Accession: A60139
R;Hardie, D.G.; Dewart, K.B.; Aitken, A.; McCarthy, A.D.
Biochim. Biophys. Acta 828, 380-382, 1985
A;Title: Amino acid sequence around the reactive serine residue of the thioesterase dom
A;Reference number: A60139; MUID:85175165; PMID:3921056
A;Accession: A60139
A;Molecule type: protein
A;Residues: 1-7 <HAR>
C;Superfamily: rat fatty-acid synthase; 3-oxoacyl-[acyl-carrier-protein] synthase I homo
ydrolase homology; short-chain alcohol dehydrogenase homology; [acyl-carrier-protein] S-
C;Keywords: acyltransferase; carrier protein; coenzyme A; homodimer; multifunctional en
F;5/Active site: Ser (of oleoyl-[acyl-carrier-protein] hydrolase) #status experimental

Query Match 38.0%; Score 19; DB 2; Length 7;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WSYG 4
:|||
Db 4 YSYG 7

RESULT 2
D47393
neuropeptide callatostatin 4 - bluebottle fly (Calliphora vomitoria)
C;Species: Calliphora vomitoria
C;Date: 16-Feb-1994 #sequence_revision 18-Nov-1994 #text_change 28-Apr-1995
C;Accession: D47393
R;Duve, H.; Johnsen, A.H.; Scott, A.G.; Yu, C.G.; Yagi, K.J.; Tobe, S.S.; Thorpe, A.
Proc. Natl. Acad. Sci. U.S.A. 90, 2456-2460, 1993
A;Title: Callatostatins: neuropeptides from the blowfly Calliphora vomitoria with seque
A;Reference number: A47393; MUID:93211980; PMID:8460157
A;Accession: D47393
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-8 <DUV>
A;Experimental source: thoracic ganglia
A;Note: sequence extracted from NCBI backbone (NCBIP:128479)

Query Match 38.0%; Score 19; DB 2; Length 8;
Best Local Similarity 60.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WSYGL 5
:|:||
Db 4 YSFGL 8

```
RESULT 3
PH1618
Ig H chain V-D-J region (clone B-less 33) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change 17-Mar-1999
C;Accession: PH1618
R;Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
A;Title: Molecular characterization of transgene-induced immunodeficiency in B-less mice
A;Reference number: PH1580; MUID:93301609; PMID:8315387
A;Accession: PH1618
A;Molecule type: DNA
A;Residues: 1-8 <LEV>
A;Experimental source: bone marrow pre-B lymphocyte
C;Keywords: immunoglobulin

  Query Match             34.0%;  Score 17;  DB 2;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 YGL 5
              |||
Db          6 YGL 8


RESULT 4
I55382
hypothetical peptide PAI1 promoter region - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 16-Apr-1999 #sequence_revision 16-Apr-1999 #text_change 20-Apr-2000
C;Accession: I55382
R;Dawson, S.J.; Wiman, B.; Hamsten, A.; Green, F.; Humphries, S.; Henney, A.M.
J. Biol. Chem. 268, 10739-10745, 1993
A;Title: The two allele sequences of a common polymorphism in the promoter of the plasmi
A;Reference number: I55382; MUID:93266509; PMID:8388372
A;Accession: I55382
A;Status: translation not shown; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-7 <DAW>
A;Cross-references: GB:M91557; NID:g190020; PIDN:AAA60110.1; PID:g190021
C;Comment: This is the hypothetical translation of a sequence from the PAI1 gene promote
C;Genetics:
A;Gene: GDB:PAI1
A;Cross-references: GDB:120297; OMIM:173360
A;Map position: 7q21.3-7q22

  Query Match             32.0%;  Score 16;  DB 4;  Length 7;
  Best Local Similarity   50.0%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 WSYG 4
              |: |
Db          1 WTRG 4


RESULT 5
PT0281
Ig heavy chain CRD3 region (clone 4-91C) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0281
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0281
A;Molecule type: DNA
A;Residues: 1-5 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

  Query Match             30.0%;  Score 15;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WS 2
              ||
Db          4 WS 5


RESULT 6
A33098
244K exoantigen - malaria parasite (Plasmodium falciparum) (fragments)
C;Species: Plasmodium falciparum
C;Date: 24-Aug-1990 #sequence_revision 24-Aug-1990 #text_change 09-Jun-2000
C;Accession: A33098
R;Nichols, J.H.; Hager, L.P.
submitted to the Protein Sequence Database, May 1990
A;Reference number: A33098
A;Accession: A33098
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-7 <NIC>

  Query Match             30.0%;  Score 15;  DB 2;  Length 7;
  Best Local Similarity   75.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          5 LRPG 8
              | ||
Db          2 LGPG 5


RESULT 7
JN0862
peptidyl-dipeptidase A inhibitory peptide C112 - striped bonito
C;Species: Sarda orientalis (striped bonito)
C;Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change 07-May-1999
C;Accession: JN0862
R;Matsumura, N.; Fujii, M.; Takeda, Y.; Shimizu, T.
Biosci. Biotechnol. Biochem. 57, 1743-1744, 1993
A;Title: Isolation and characterization of angiotensin I-converting enzyme inhibitory p
A;Reference number: JN0859; MUID:94080036; PMID:7764272
A;Accession: JN0862
A;Molecule type: protein
A;Residues: 1-5 <MAT>
A;Experimental source: intestine
C;Comment: The amino terminal tripeptide of this protein inhibits angiotensin I-convert
C;Superfamily: bradykinin-potentiating peptide
C;Keywords: angiotensin-converting enzyme inhibitor

  Query Match             28.0%;  Score 14;  DB 2;  Length 5;
  Best Local Similarity   66.7%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          5 LRP 7
              :||
Db          1 IRP 3


RESULT 8
I79564
hypothetical TCL3 protein (mistranslated) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 28-Jan-2000 #sequence_revision 28-Jan-2000 #text_change 28-Jan-2000
C;Accession: I79564
R;Zutter, M.; Hockett, R.D.; Roberts, C.W.; McGuire, E.A.; Bloomstone, J.; Morton, C.C.
Proc. Natl. Acad. Sci. U.S.A. 87, 3161-3165, 1990
A;Title: The t(10;14)(q24;q11) of T-cell acute lymphoblastic leukemia juxtaposes the del
A;Reference number: I59162; MUID:90222189; PMID:2326274
A;Accession: I79564
A;Status: translation not shown; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-6 <ZUT>
A;Cross-references: GB:M33602; NID:g339907; PIDN:AAA66449.1; PID:g807656
```

C;Comment: This is the hypothetical translation of a sequence translated in an incorrect

  Query Match 28.0%; Score 14; DB 4; Length 6;
  Best Local Similarity 50.0%; Pred. No. 2.8e+05;
  Matches 2; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1 WSYG 4
  | |
Db 2 WCCG 5

RESULT 9
PT0581
T-cell receptor beta chain V-D-J region (159-1A) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0581
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0581
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-7 <FEE>
A;Experimental source: day 19 fetal thymus, strain BALB/c
C;Keywords: T-cell receptor

  Query Match 28.0%; Score 14; DB 2; Length 7;
  Best Local Similarity 75.0%; Pred. No. 2.8e+05;
  Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 5 LRPG 8
  || |
Db 4 LRQG 7

RESULT 10
S19288
acylase - Kluyvera cryocrescens
C;Species: Kluyvera cryocrescens
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 24-Jul-1997
C;Accession: S19288
R;Martin, J.; Slade, A.; Aitken, A.; Arche, R.; Virden, R.
Biochem. J. 280, 659-662, 1991
A;Title: Chemical modification of serine at the active site of penicillin acylase from K
A;Reference number: S19288; MUID:92109664; PMID:1764029
A;Accession: S19288
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-8 <MAR>

  Query Match 28.0%; Score 14; DB 2; Length 8;
  Best Local Similarity 50.0%; Pred. No. 2.8e+05;
  Matches 2; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1 WSYG 4
  | |
Db 4 WVIG 7

RESULT 11
S16324
hypothetical protein 2 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 21-Nov-1993 #sequence_revision 12-May-1995 #text_change 21-Jul-2000
C;Accession: S16324
R;Ruberti, I.; Sessa, G.; Lucchetti, S.; Morelli, G.
EMBO J. 10, 1787-1791, 1991
A;Title: A novel class of plant proteins containing a homeodomain with a closely linked
A;Reference number: S16323; MUID:91266907; PMID:1675603
A;Accession: S16324
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-8 <RUB>
A;Cross-references: EMBL:X58821; NID:g16327; PIDN:CAA41624.1; PID:g579259

  Query Match 28.0%; Score 14; DB 2; Length 8;
  Best Local Similarity 60.0%; Pred. No. 2.8e+05;
  Matches 3; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 3 YGLRP 7
  | | |
Db 3 YKLLP 7

RESULT 12
S11078
glucose-6-phosphate 1-dehydrogenase (EC 1.1.1.49) - yeast (Pichia jadinii) (fragment)
C;Species: Pichia jadinii, Candida utilis
C;Date: 30-Jun-1991 #sequence_revision 30-Sep-1991 #text_change 05-Aug-1994
C;Accession: S11078
R;Egestad, B.; Estonius, M.; Danielsson, O.; Persson, B.; Cederlund, E.; Kaiser, R.; Hol
FEBS Lett. 269, 194-196, 1990
A;Title: Fast atom bombardment mass spectrometry and chemical analysis in determinatione
A;Reference number: S11074; MUID:90353571; PMID:2387402
A;Accession: S11078
A;Molecule type: protein
A;Residues: 1-8 <EGE>
A;Note: the source is designated as Pichia jadinii
C;Keywords: acetylated amino end; oxidoreductase; pentose phosphate pathway
F;1/Modified site: acetylated amino end (Ser) #status experimental

  Query Match 28.0%; Score 14; DB 2; Length 8;
  Best Local Similarity 60.0%; Pred. No. 2.8e+05;
  Matches 3; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 2 SYGLR 6
  |:| |
Db 4 SFGDR 8

RESULT 13
JS0318
leucokinin VIII - Madeira cockroach
C;Species: Leucophaea maderae (Madeira cockroach)
C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 20-Jun-2000
C;Accession: JS0318
R;Holman, G.M.; Cook, B.J.; Nachman, R.J.
Comp. Biochem. Physiol. C 88, 31-34, 1987
A;Title: Isolation, primary structure and synthesis of leucokinins VII and VIII: the fi
A;Reference number: JS0317
A;Accession: JS0318
A;Molecule type: protein
A;Residues: 1-8 <HOL>
C;Comment: Leucokinins, a family of cephalomyotropic peptides, stimulate contractile act
C;Keywords: amidated carboxyl end; cephalomyotropic peptide
F;8/Modified site: amidated carboxyl end (Gly) #status experimental

  Query Match 28.0%; Score 14; DB 2; Length 8;
  Best Local Similarity 50.0%; Pred. No. 2.8e+05;
  Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WSYG 4
  :|:|
Db 5 YSWG 8

RESULT 14
PT0311
Ig heavy chain CRD3 region (clone 6-100) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0311
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991

A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0311
A;Molecule type: DNA
A;Residues: 1-8 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

Query Match 28.0%; Score 14; DB 2; Length 8;
Best Local Similarity 66.7%; Pred. No. 2.8e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy          2 SYG 4
              :||
Db          3 AYG 5
```

RESULT 15
A34626
RPCH-related neuropeptide - ferruginous spindle
C;Species: Fusinus ferrugineus (ferruginous spindle)
C;Date: 06-Jul-1990 #sequence_revision 06-Jul-1990 #text_change 31-Dec-1993
C;Accession: A34626
R;Kuroki, Y.; Kanda, T.; Kubota, I.; Fujisawa, Y.; Ikeda, T.; Miura, A.; Minamitake, Y.;
Biochem. Biophys. Res. Commun. 167, 273-279, 1990
A;Title: A molluscan neuropeptide related to the crustacean hormone, RPCH.
A;Reference number: A34626; MUID:90179762; PMID:2310394
A;Accession: A34626
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-4 <KUR>
C;Keywords: neuropeptide

Query Match 26.0%; Score 13; DB 2; Length 4;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          7 PG 8
              ||
Db          2 PG 3
```

Search completed: November 17, 2003, 18:42:15
Job time : 20 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:32:45 ; Search time 11 Seconds
(without alignments)
34.201 Million cell updates/sec

Title: US-09-462-089-3
Perfect score: 50
Sequence: 1 WSYGLRPG 8

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 127863 seqs, 47026705 residues

Total number of hits satisfying chosen parameters: 158

Minimum DB seq length: 0
Maximum DB seq length: 8

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_41:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	23	46.0	8	1	AL16_CARMA	P81819 carcinus ma
2	19	38.0	5	1	AL14_CARMA	P81817 carcinus ma
3	19	38.0	8	1	AL15_CARMA	P81818 carcinus ma
4	19	38.0	8	1	AL17_CARMA	P81820 carcinus ma
5	19	38.0	8	1	AL18_CARMA	P81821 carcinus ma
6	19	38.0	8	1	ALL3_CYDPO	P82154 cydia pomon
7	19	38.0	8	1	ALL4_CALVO	P41840 calliphora
8	19	38.0	8	1	ALL4_CYDPO	P82155 cydia pomon
9	16	32.0	7	1	ALL2_CARMA	P81805 carcinus ma
10	16	32.0	7	1	ALL3_CARMA	P81806 carcinus ma
11	16	32.0	7	1	ALL4_CARMA	P81807 carcinus ma
12	16	32.0	7	1	ALL5_CARMA	P81808 carcinus ma
13	16	32.0	8	1	AL12_CARMA	P81815 carcinus ma
14	16	32.0	8	1	ALL1_CYDPO	P82152 cydia pomon
15	16	32.0	8	1	ALL6_CYDPO	P82157 cydia pomon
16	16	32.0	8	1	ALL7_CARMA	P81809 carcinus ma
17	16	32.0	8	1	ALL8_CARMA	P81811 carcinus ma
18	16	32.0	8	1	ALL9_CARMA	P81812 carcinus ma
19	15	30.0	7	1	ALL7_CYDPO	P82158 cydia pomon
20	15	30.0	7	1	UN06_PINPS	P81675 pinus pinas
21	15	30.0	8	1	ALL5_CYDPO	P82156 cydia pomon
22	14	28.0	8	1	LCK8_LEUMA	P19990 leucophaea
23	13	26.0	8	1	AKH_TABAT	P14595 tabanus atr
24	13	26.0	8	1	ALL5_CALVO	P41841 calliphora
25	13	26.0	8	1	LCK2_LEUMA	P21141 leucophaea
26	13	26.0	8	1	RPCH_PANBO	P08939 pandalus bo
27	13	26.0	8	1	UF06_MOUSE	P38644 mus musculu
28	13	26.0	8	1	UPAA_HUMAN	P30096 homo sapien
29	13	26.0	8	1	VGLG_HSV2B	P81780 herpes simp
30	12	24.0	5	1	BPP7_BOTIN	P30425 bothrops in
31	12	24.0	6	1	LOK1_LOCMI	P41491 locusta mig
32	12	24.0	8	1	LCK1_LEUMA	P21140 leucophaea
33	12	24.0	8	1	LCK3_LEUMA	P21142 leucophaea
34	12	24.0	8	1	LCK4_LEUMA	P21143 leucophaea
35	12	24.0	8	1	LCK5_LEUMA	P19987 leucophaea
36	12	24.0	8	1	LCK6_LEUMA	P19988 leucophaea
37	12	24.0	8	1	LCK7_LEUMA	P19989 leucophaea
38	12	24.0	8	1	PPK3_PERAM	P82618 periplaneta
39	11	22.0	4	1	OCP3_OCTMI	P58649 octopus min
40	11	22.0	5	1	UF01_MOUSE	P38639 mus musculu
41	11	22.0	6	1	EI01_LITRU	P82096 litoria rub
42	11	22.0	7	1	BRHP_CONIM	P58803 conus imper
43	11	22.0	7	1	HY7_PIG	P01153 sus scrofa
44	11	22.0	7	1	TPFY_PACDA	P83455 pachymedusa
45	11	22.0	7	1	TY51_LITRU	P82065 litoria rub

ALIGNMENTS

RESULT 1
AL16_CARMA
ID AL16_CARMA STANDARD; PRT; 8 AA.
AC P81819;
DT 30-MAY-2000 (Rel. 39, Created)
DT 30-MAY-2000 (Rel. 39, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE Carcinustatin 16.
OS Carcinus maenas (Common shore crab) (Green crab).
OC Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX NCBI_TaxID=6759;
RN [1]
RP SEQUENCE.
RC TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX MEDLINE=98121193; PubMed=9461295;
RA Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA Thorpe A.;
RT "Isolation and identification of multiple neuropeptides of the
RT allatostatin superfamily in the shore crab Carcinus maenas.";
RL Eur. J. Biochem. 250:727-734(1997).
CC -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW Neuropeptide; Amidation; Multigene family.
FT MOD_RES 8 8 AMIDATION.
SQ SEQUENCE 8 AA; 813 MW; 7C286B45AB476878 CRC64;

Query Match 46.0%; Score 23; DB 1; Length 8;
Best Local Similarity 80.0%; Pred. No. 1.3e+05;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 WSYGL 5
              :||||
Db          4 YSYGL 8
```

RESULT 2
AL14_CARMA
ID AL14_CARMA STANDARD; PRT; 5 AA.
AC P81817;
DT 30-MAY-2000 (Rel. 39, Created)
DT 30-MAY-2000 (Rel. 39, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE Carcinustatin 14.
OS Carcinus maenas (Common shore crab) (Green crab).
OC Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX NCBI_TaxID=6759;
RN [1]
RP SEQUENCE.
RC TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX MEDLINE=98121193; PubMed=9461295;
RA Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA Thorpe A.;

```
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation; Multigene family.
FT   MOD_RES       5       5       AMIDATION (POTENTIAL).
SQ   SEQUENCE   5 AA;  586 MW;  672879D5AB300000 CRC64;

  Query Match             38.0%;  Score 19;  DB 1;  Length 5;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGL 5
              :|:||
Db          1 YSFGL 5


RESULT 3
AL15_CARMA
ID   AL15_CARMA     STANDARD;      PRT;     8 AA.
AC   P81818;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 15.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation; Multigene family.
FT   MOD_RES       8       8       AMIDATION.
SQ   SEQUENCE   8 AA;  811 MW;  922879D5AB47687D CRC64;

  Query Match             38.0%;  Score 19;  DB 1;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGL 5
              :|:||
Db          4 YSFGL 8


RESULT 4
AL17_CARMA
ID   AL17_CARMA     STANDARD;      PRT;     8 AA.
AC   P81820;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 17.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation; Multigene family.
FT   MOD_RES       8       8       AMIDATION (POTENTIAL).
SQ   SEQUENCE   8 AA;  858 MW;  C82879D5AB46D865 CRC64;

  Query Match             38.0%;  Score 19;  DB 1;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGL 5
              :|:||
Db          4 YSFGL 8


RESULT 5
AL18_CARMA
ID   AL18_CARMA     STANDARD;      PRT;     8 AA.
AC   P81821;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 18.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation; Multigene family.
FT   MOD_RES       8       8       AMIDATION (POTENTIAL).
SQ   SEQUENCE   8 AA;  919 MW;  C82879D5AB569AB5 CRC64;

  Query Match             38.0%;  Score 19;  DB 1;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGL 5
              :|:||
Db          4 YSFGL 8


RESULT 6
ALL3_CYDPO
ID   ALL3_CYDPO     STANDARD;      PRT;     8 AA.
AC   P82154;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Cydiastatin 3.
OS   Cydia pomonella (Codling moth).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
OC   Tortricoidea; Tortricidae; Olethreutinae; Cydia.
OX   NCBI_TaxID=82600;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Larva;
RX   MEDLINE=98054539; PubMed=9392829;
```

```
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Winstanley D.,
RA   Davey M., East P.D., Thorpe A.;
RT   "Lepidopteran peptides of the allatostatin superfamily.";
RL   Peptides 18:1301-1309(1997).
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation.
FT   MOD_RES       8       8       AMIDATION.
SQ   SEQUENCE   8 AA;  926 MW;  C82879D5AB477415 CRC64;

  Query Match             38.0%;  Score 19;  DB 1;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGL 5
              :|:||
Db          4 YSFGL 8


RESULT 7
ALL4_CALVO
ID   ALL4_CALVO     STANDARD;      PRT;     8 AA.
AC   P41840;
DT   01-NOV-1995 (Rel. 32, Created)
DT   01-NOV-1995 (Rel. 32, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Callatostatin 4 (Leu-callatostatin 4).
OS   Calliphora vomitoria (Blue blowfly).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC   Calliphoridae; Calliphora.
OX   NCBI_TaxID=27454;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Thoracic ganglion;
RX   MEDLINE=93211980; PubMed=8460157;
RA   Duve H., Johnsen A.H., Scott A.G., Yu C.G., Yagi K.J., Tobe S.S.,
RA   Thorpe A.;
RT   "Callatostatins: neuropeptides from the blowfly Calliphora vomitoria
RT   with sequence homology to cockroach allatostatins.";
RL   Proc. Natl. Acad. Sci. U.S.A. 90:2456-2460(1993).
RN   [2]
RP   CHARACTERIZATION.
RX   MEDLINE=94291167; PubMed=8020069;
RA   Duve H., Thorpe A.;
RT   "Distribution and functional significance of Leu-callatostatins in
RT   the blowfly Calliphora vomitoria.";
RL   Cell Tissue Res. 276:367-379(1994).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR AND PLAY
CC       A ROLE IN THE INTEGRATION OF INFORMATION WITHIN THE BRAIN. MAY BE
CC       INVOLVED IN THE CONTROL OF VISCERAL MUSCLES DUE TO ITS ABILITY TO
CC       BEHAVE AS POTENT INHIBITORS OF PERISTALIC MOVEMENTS. MAY ALSO
CC       FULFILL A NEUROHORMONAL ROLE ON MUSCLES OF THE GUT AND HEART.
CC   -!- TISSUE SPECIFICITY: BRAIN, SUBOESOPHAGEAL GANGLION, RETROCEREBRAL
CC       COMPLEX, THORACICO-ABDOMINAL GANGLION, PERIPHERAL NEUROSECRETORY
CC       SYSTEM AND INTESTINE.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
DR   PIR; D47393; D47393.
KW   Neuropeptide; Amidation.
FT   MOD_RES       8       8       AMIDATION.
FT   UNSURE        1       1       OR N.
SQ   SEQUENCE   8 AA;  954 MW;  D32879D5AB47740A CRC64;

  Query Match             38.0%;  Score 19;  DB 1;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGL 5
              :|:||
Db          4 YSFGL 8


RESULT 8
ALL4_CYDPO
ID   ALL4_CYDPO     STANDARD;      PRT;     8 AA.
AC   P82155;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Cydiastatin 4.
OS   Cydia pomonella (Codling moth).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
OC   Tortricoidea; Tortricidae; Olethreutinae; Cydia.
OX   NCBI_TaxID=82600;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Larva;
RX   MEDLINE=98054539; PubMed=9392829;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Winstanley D.,
RA   Davey M., East P.D., Thorpe A.;
RT   "Lepidopteran peptides of the allatostatin superfamily.";
RL   Peptides 18:1301-1309(1997).
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation.
FT   MOD_RES       8       8       AMIDATION.
SQ   SEQUENCE   8 AA;  910 MW;  922879D5AB47740D CRC64;

  Query Match             38.0%;  Score 19;  DB 1;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGL 5
              :|:||
Db          4 YSFGL 8


RESULT 9
ALL2_CARMA
ID   ALL2_CARMA     STANDARD;      PRT;     7 AA.
AC   P81805;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 2.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation; Multigene family.
FT   MOD_RES       7       7       AMIDATION (POTENTIAL).
SQ   SEQUENCE   7 AA;  770 MW;  672879CDCB5DDB70 CRC64;

  Query Match             32.0%;  Score 16;  DB 1;  Length 7;
  Best Local Similarity   40.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGL 5
              :::||
Db          3 YAFGL 7


RESULT 10
ALL3_CARMA
ID   ALL3_CARMA     STANDARD;      PRT;     7 AA.
```

```
AC   P81806;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 3.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Multigene family.
SQ   SEQUENCE   7 AA;  796 MW;  672879CDCB476B70 CRC64;

  Query Match             32.0%;  Score 16;  DB 1;  Length 7;
  Best Local Similarity   40.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGL 5
              :::||
Db          3 YAFGL 7


RESULT 11
ALL4_CARMA
ID   ALL4_CARMA     STANDARD;      PRT;     7 AA.
AC   P81807;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 4.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Multigene family.
SQ   SEQUENCE   7 AA;  782 MW;  672879CDCB476AC0 CRC64;

  Query Match             32.0%;  Score 16;  DB 1;  Length 7;
  Best Local Similarity   40.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGL 5
              :::||
Db          3 YAFGL 7


RESULT 12
ALL5_CARMA
ID   ALL5_CARMA     STANDARD;      PRT;     7 AA.
AC   P81808;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 5.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation; Multigene family.
FT   MOD_RES       7       7       AMIDATION.
SQ   SEQUENCE   7 AA;  781 MW;  672879CDCB476420 CRC64;

  Query Match             32.0%;  Score 16;  DB 1;  Length 7;
  Best Local Similarity   40.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGL 5
              :::||
Db          3 YAFGL 7


RESULT 13
AL12_CARMA
ID   AL12_CARMA     STANDARD;      PRT;     8 AA.
AC   P81815;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Carcinustatin 12.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODULATOR.
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Multigene family.
SQ   SEQUENCE   8 AA;  913 MW;  672879CDCB569AB7 CRC64;

  Query Match             32.0%;  Score 16;  DB 1;  Length 8;
  Best Local Similarity   40.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGL 5
              :::||
Db          4 YAFGL 8


RESULT 14
ALL1_CYDPO
ID   ALL1_CYDPO     STANDARD;      PRT;     8 AA.
AC   P82152;
```

```
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Cydiastatin 1.
OS   Cydia pomonella (Codling moth).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
OC   Tortricoidea; Tortricidae; Olethreutinae; Cydia.
OX   NCBI_TaxID=82600;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Larva;
RX   MEDLINE=98054539; PubMed=9392829;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Winstanley D.,
RA   Davey M., East P.D., Thorpe A.;
RT   "Lepidopteran peptides of the allatostatin superfamily.";
RL   Peptides 18:1301-1309(1997).
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation.
FT   MOD_RES       8      8       AMIDATION.
SQ   SEQUENCE   8 AA;  934 MW;  C82879C45B51F775 CRC64;

  Query Match             32.0%;  Score 16;  DB 1;  Length 8;
  Best Local Similarity   40.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGL 5
              :::||
Db          4 YNFGL 8


RESULT 15
ALL6_CYDPO
ID   ALL6_CYDPO     STANDARD;      PRT;     8 AA.
AC   P82157;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Cydiastatin 6.
OS   Cydia pomonella (Codling moth).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
OC   Tortricoidea; Tortricidae; Olethreutinae; Cydia.
OX   NCBI_TaxID=82600;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Larva;
RX   MEDLINE=98054539; PubMed=9392829;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Winstanley D.,
RA   Davey M., East P.D., Thorpe A.;
RT   "Lepidopteran peptides of the allatostatin superfamily.";
RL   Peptides 18:1301-1309(1997).
CC   -!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW   Neuropeptide; Amidation.
FT   MOD_RES       8      8       AMIDATION.
SQ   SEQUENCE   8 AA;  936 MW;  0B2879C45B573767 CRC64;

  Query Match             32.0%;  Score 16;  DB 1;  Length 8;
  Best Local Similarity   40.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGL 5
              :::||
Db          4 YNFGL 8


Search completed: November 17, 2003, 18:40:56
Job time : 11 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:38:10 ; Search time 33 Seconds
(without alignments)
62.558 Million cell updates/sec

Title: US-09-462-089-3
Perfect score: 50
Sequence: 1 WSYGLRPG 8

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 830525 seqs, 258052604 residues

Total number of hits satisfying chosen parameters: 452

Minimum DB seq length: 0
Maximum DB seq length: 8

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SPTREMBL_23:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	18	36.0	8	8	Q94VC1	Q94vc1 varanus rud
2	17	34.0	8	13	P79940	P79940 xenopus lae
3	15	30.0	8	4	Q15888	Q15888 homo sapien
4	15	30.0	8	8	Q94PX5	Q94px5 felis silve
5	15	30.0	8	8	Q94VB2	Q94vb2 varanus sal
6	15	30.0	8	8	Q94PX7	Q94px7 felis silve
7	15	30.0	8	8	Q94PX6	Q94px6 felis libyc
8	15	30.0	8	8	Q94VA7	Q94va7 varanus sal
9	15	30.0	8	8	Q94VB5	Q94vb5 varanus sal
10	15	30.0	8	11	P82598	P82598 rattus norv
11	15	30.0	8	12	Q64971	Q64971 alfalfa mos
12	14.5	29.0	8	2	O85406	O85406 coxiella bu
13	13.5	27.0	8	13	Q98TU5	Q98tu5 xenopus lae
14	13	26.0	7	10	O49223	O49223 glycine max
15	13	26.0	8	2	O09258	O09258 synechococc
16	13	26.0	8	2	Q56140	Q56140 streptococc
17	13	26.0	8	2	O52062	O52062 bacillus me
18	13	26.0	8	4	Q15901	Q15901 homo sapien
19	13	26.0	8	5	O02032	O02032 lytechinus
20	13	26.0	8	6	Q9TT78	Q9tt78 canis famil
21	13	26.0	8	6	Q9XSY1	Q9xsy1 canis famil
22	13	26.0	8	7	Q95213	Q95213 oryctolagus
23	13	26.0	8	10	Q8L802	Q81802 zea mays (m
24	13	26.0	8	13	P82079	P82079 limnodynast
25	12	24.0	7	2	Q47505	Q47505 escherichia
26	12	24.0	7	2	Q8GL00	Q8gl00 borrelia bu
27	12	24.0	7	8	O98866	O98866 spinacia ol
28	12	24.0	7	10	P93233	P93233 lycopersico
29	12	24.0	8	2	Q8GMM5	Q8gmm5 acinetobact
30	12	24.0	8	4	Q8IVK3	Q8ivk3 homo sapien
31	12	24.0	8	5	P82685	P82685 periplaneta
32	12	24.0	8	5	P82686	P82686 periplaneta
33	12	24.0	8	5	P82687	P82687 periplaneta
34	12	24.0	8	5	P82688	P82688 periplaneta
35	12	24.0	8	5	P82689	P82689 periplaneta
36	12	24.0	8	6	Q9GMH3	Q9gmh3 lagenorhync
37	12	24.0	8	6	Q28866	Q28866 megaptera n
38	12	24.0	8	8	Q94VF6	Q94vf6 varanus job
39	12	24.0	8	8	Q8WGD7	Q8wgd7 lomis hirta
40	12	24.0	8	8	Q94V88	Q94v88 varanus tri
41	12	24.0	8	8	Q9TD02	Q9td02 terranatos
42	12	24.0	8	8	Q9T4Y2	Q9t4y2 asterina pe
43	12	24.0	8	8	Q94VJ4	Q94vj4 varanus ben
44	12	24.0	8	8	Q94V91	Q94v91 varanus tim
45	12	24.0	8	8	Q94VE4	Q94ve4 varanus mel

ALIGNMENTS

RESULT 1
Q94VC1
ID Q94VC1 PRELIMINARY; PRT; 8 AA.
AC Q94VC1;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus rudicollis.
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX NCBI_TaxID=169851;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407521; AAL10116.1; -.
KW Mitochondrion.
FT NON_TER 8 8
SQ SEQUENCE 8 AA; 1053 MW; FE2729D5A36411A6 CRC64;

Query Match 36.0%; Score 18; DB 8; Length 8;
Best Local Similarity 66.7%; Pred. No. 8.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 WSY 3
              ||:
Db          4 WSF 6
```

RESULT 2
P79940
ID P79940 PRELIMINARY; PRT; 8 AA.
AC P79940;
DT 01-MAY-1997 (TrEMBLrel. 03, Created)
DT 01-MAY-1997 (TrEMBLrel. 03, Last sequence update)

```
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   XMeis1-4 protein (Fragment).
OS   Xenopus laevis (African clawed frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
OC   Xenopodinae; Xenopus.
OX   NCBI_TaxID=8355;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=97202105; PubMed=9049632;
RA   Steelman S., Moskow J.J., Muzynski K., North C., Druck T.,
RA   Montgomery J.C., Huebner K., Daar I.O., Buchberg A.M.;
RT   "Identification of a conserved family of Meis1-related homeobox
RT   genes.";
RL   Genome Res. 7:142-156(1997).
DR   EMBL; U68389; AAB19199.1; -.
DR   TRANSFAC; T03410; -.
FT   NON_TER       1      1
SQ   SEQUENCE   8 AA;  1187 MW;  278B51F37B11F40B CRC64;

  Query Match             34.0%;  Score 17;  DB 13;  Length 8;
  Best Local Similarity   66.7%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 WSY 3
              | |
Db          5 WHY 7


RESULT 3
Q15888
ID   Q15888      PRELIMINARY;      PRT;     8 AA.
AC   Q15888;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   (Clone XP15H8A) (Fragment).
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Placenta;
RA   Lee C.-C., Yazdani A., Wehnert M., Bailey J., Couch L., Xiong M.,
RA   Coolbaugh M.I., Chinault C.A., Baldini A., Lindsay E.A., Zhao Z.-Y.,
RA   Caskey C.T.H.;
RT   "Isolation of chromosome-specific genes by reciprocal probing of
RT   arrayed cDNAs and cosmid libraries.";
RL   Hum. Mol. Genet. 0:0-0(1995).
DR   EMBL; L32069; AAA73878.1; -.
FT   NON_TER       1      1
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  1068 MW;  0315A37EAB5B0763 CRC64;

  Query Match             30.0%;  Score 15;  DB 4;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WS 2
              ||
Db          6 WS 7


RESULT 4
Q94PX5
ID   Q94PX5      PRELIMINARY;      PRT;     8 AA.
AC   Q94PX5;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit II (Fragment).
GN   COII.
OS   Felis silvestris (Wild cat).
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX   NCBI_TaxID=9683;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=66, 71, 75, 90, 1, and 2;
RA   Randi E., Pierpaoli M., Beaumont M., Ragni B., Sforzi A.;
RT   "Genetic identification of wild and domestic cats (Felis silvestris),
RT   and their hybrids using Bayesian clustering methods.";
RL   Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AJ409136; CAC41051.1; -.
DR   EMBL; AJ409137; CAC41054.1; -.
DR   EMBL; AJ409138; CAC41057.1; -.
DR   EMBL; AJ409139; CAC41060.1; -.
DR   EMBL; AJ409141; CAC41066.1; -.
DR   EMBL; AJ409143; CAC41072.1; -.
KW   Mitochondrion.
FT   NON_TER       1      1
SQ   SEQUENCE   8 AA;  951 MW;  262685BDC5A3733B CRC64;

  Query Match             30.0%;  Score 15;  DB 8;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WS 2
              ||
Db          3 WS 4


RESULT 5
Q94VB2
ID   Q94VB2      PRELIMINARY;      PRT;     8 AA.
AC   Q94VB2;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit I (Fragment).
GN   COI.
OS   Varanus salvator togianus.
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX   NCBI_TaxID=169832;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Ast J.C.;
RT   "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL   Cladistics 17:0-0(2001).
DR   EMBL; AF407524; AAL10125.1; -.
KW   Mitochondrion.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  992 MW;  EFC775A5A36411A6 CRC64;

  Query Match             30.0%;  Score 15;  DB 8;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WS 2
              ||
Db          4 WS 5


RESULT 6
Q94PX7
ID   Q94PX7      PRELIMINARY;      PRT;     8 AA.
AC   Q94PX7;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit II (Fragment).
GN   COII.
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OS   Felis silvestris catus (Cat).
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX   NCBI_TaxID=9685;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=1, 2, 7, 12, 16, 17, and 110;
RA   Randi E., Pierpaoli M., Beaumont M., Ragni B., Sforzi A.;
RT   "Genetic identification of wild and domestic cats (Felis silvestris),
RT   and their hybrids using Bayesian clustering methods.";
RL   Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AJ409128; CAC41027.1; -.
DR   EMBL; AJ409129; CAC41030.1; -.
DR   EMBL; AJ409130; CAC41033.1; -.
DR   EMBL; AJ409131; CAC41036.1; -.
DR   EMBL; AJ409132; CAC41039.1; -.
DR   EMBL; AJ409133; CAC41042.1; -.
DR   EMBL; AJ409134; CAC41045.1; -.
KW   Mitochondrion.
FT   NON_TER       1      1
SQ   SEQUENCE   8 AA;  951 MW;  262685BDC5A3733B CRC64;

  Query Match             30.0%;  Score 15;  DB 8;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WS 2
              ||
Db          3 WS 4


RESULT 7
Q94PX6
ID   Q94PX6      PRELIMINARY;      PRT;     8 AA.
AC   Q94PX6;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit II (Fragment).
GN   COII.
OS   Felis libyca.
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX   NCBI_TaxID=61377;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=40, 1, 2, and 7;
RA   Randi E., Pierpaoli M., Beaumont M., Ragni B., Sforzi A.;
RT   "Genetic identification of wild and domestic cats (Felis silvestris),
RT   and their hybrids using Bayesian clustering methods.";
RL   Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AJ409135; CAC41048.1; -.
DR   EMBL; AJ409140; CAC41063.1; -.
DR   EMBL; AJ409142; CAC41069.1; -.
DR   EMBL; AJ409144; CAC41075.1; -.
KW   Mitochondrion.
FT   NON_TER       1      1
SQ   SEQUENCE   8 AA;  951 MW;  262685BDC5A3733B CRC64;

  Query Match             30.0%;  Score 15;  DB 8;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WS 2
              ||
Db          3 WS 4


RESULT 8
Q94VA7
ID   Q94VA7      PRELIMINARY;      PRT;     8 AA.
AC   Q94VA7;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit I (Fragment).
GN   COI.
OS   Varanus salvator salvator.
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX   NCBI_TaxID=169831;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Ast J.C.;
RT   "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL   Cladistics 17:0-0(2001).
DR   EMBL; AF407526; AAL10130.1; -.
KW   Mitochondrion.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  992 MW;  EFC775A5A36411A6 CRC64;

  Query Match             30.0%;  Score 15;  DB 8;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WS 2
              ||
Db          4 WS 5


RESULT 9
Q94VB5
ID   Q94VB5      PRELIMINARY;      PRT;     8 AA.
AC   Q94VB5;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Cytochrome c oxidase subunit I (Fragment).
GN   COI.
OS   Varanus salvator cumingi.
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX   NCBI_TaxID=169830;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Ast J.C.;
RT   "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL   Cladistics 17:0-0(2001).
DR   EMBL; AF407523; AAL10122.1; -.
KW   Mitochondrion.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  992 MW;  EFC775A5A36411A6 CRC64;

  Query Match             30.0%;  Score 15;  DB 8;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WS 2
              ||
Db          4 WS 5


RESULT 10
P82598
ID   P82598      PRELIMINARY;      PRT;     8 AA.
AC   P82598;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT   01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
DE   38kDa non-arginase growth inhibitory factor (NAGIF)(Fragment).
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE.
RC   STRAIN=Sprague-Dawley; TISSUE=Liver;
RX   MEDLINE=20198203; PubMed=10731662;
RA   Kim K.-Y., Choi I., Kim S.-S.;
RT   "Purification and characterization of a novel inhibitor of the
RT   proliferation of hepatic stellate cells.";
RL   J. Biochem. 127:23-27(2000).
CC   -!- FUNCTION: MAY ACT AS A NEGATIVE EFFECTOR IN THE REGULATION OF THE
CC       HEPATIC STELLATE CELLS (HSC). ALSO INHIBITS THE GROWTH OF BOVINE
CC       ENDOTHELIAL CELLS AND 3T6 FIBROBLASTS.
CC   -!- SIMILARITY: IDENTICAL TO THE 63-70 AA REGION OF THE RAT ZAG
CC       PROTEIN.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  914 MW;  80A3676B02D76B1D CRC64;

  Query Match             30.0%;  Score 15;  DB 11;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WS 2
              ||
Db          7 WS 8


RESULT 11
Q64971
ID   Q64971      PRELIMINARY;      PRT;     8 AA.
AC   Q64971;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Putative ORF (Fragment).
OS   Alfalfa mosaic virus.
OC   Viruses; ssRNA positive-strand viruses, no DNA stage; Bromoviridae;
OC   Alfamovirus.
OX   NCBI_TaxID=12321;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=81124289; PubMed=6927843;
RA   Koper-Zwarthoff E.C., Brederode F.T.M., Veeneman G., van Boom J.H.,
RA   Bol J.F.;
RT   "Nucleotide sequences at the 5'-termini of the alfalfa mosaic virus
RT   RNAs and the intercistronic junction in RNA 3.";
RL   Nucleic Acids Res. 8:5635-5647(1980).
DR   EMBL; V00047; CAA23416.1; -.
FT   NON_TER       1      1
SQ   SEQUENCE   8 AA;  917 MW;  69D40B0775A365B8 CRC64;

  Query Match             30.0%;  Score 15;  DB 12;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WS 2
              ||
Db          3 WS 4


RESULT 12
O85406
ID   O85406      PRELIMINARY;      PRT;     8 AA.
AC   O85406;
DT   01-NOV-1998 (TrEMBLrel. 08, Created)
DT   01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Hypothetical 1.0 kDa protein (Fragment).
OS   Coxiella burnetii.
OC   Bacteria; Proteobacteria; Gammaproteobacteria; Legionellales;
OC   Coxiellaceae; Coxiella.
OX   NCBI_TaxID=777;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Nine Mile Phase I;
RX   MEDLINE=98348442; PubMed=9683477;
RA   Willems H., Jaeger C., Baljer G.;
RT   "Physical and genetic map of the obligate intracellular bacterium
RT   Coxiella burnetii.";
RL   J. Bacteriol. 180:3816-3822(1998).
DR   EMBL; AF064963; AAD09947.1; -.
KW   Hypothetical protein.
FT   NON_TER       1      1
SQ   SEQUENCE   8 AA;  993 MW;  046B5AA453772727 CRC64;

  Query Match             29.0%;  Score 14.5;  DB 2;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 8.3e+05;
  Matches    3;  Conservative    1;  Mismatches    0;  Indels    1;  Gaps    1;

Qy          1 WS-YG 4
              |: ||
Db          4 WNDYG 8


RESULT 13
Q98TU5
ID   Q98TU5      PRELIMINARY;      PRT;     8 AA.
AC   Q98TU5;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   ElrD transcript 2 (Fragment).
GN   ELRD.
OS   Xenopus laevis (African clawed frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
OC   Xenopodinae; Xenopus.
OX   NCBI_TaxID=8355;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=21226152; PubMed=11327714;
RA   Nassar F., Wegnez M.;
RT   "Characterization of two promoters of the Xenopus laevis elrD gene.";
RL   Biochem. Biophys. Res. Commun. 283:392-398(2001).
DR   EMBL; AF329448; AAK01428.1; -.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  1008 MW;  FF93372874537B16 CRC64;

  Query Match             27.0%;  Score 13.5;  DB 13;  Length 8;
  Best Local Similarity   50.0%;  Pred. No. 8.3e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    1;  Gaps    1;

Qy          1 WSYGLR 6
              |: ||:
Db          3 WN-GLK 7


RESULT 14
O49223
ID   O49223      PRELIMINARY;      PRT;     7 AA.
AC   O49223;
DT   01-JUN-1998 (TrEMBLrel. 06, Created)
DT   01-JUN-1998 (TrEMBLrel. 06, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   HMG-1-like protein (Fragment).
OS   Glycine max (Soybean).
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;
OC   eurosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae; Glycine.
OX   NCBI_TaxID=3847;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=cv. Essex; TISSUE=Root;
RX   MEDLINE=91367679; PubMed=1891369;
RA   Laux T., Goldberg R.B.;
RT   "A plant DNA binding protein shares highly conserved sequence motifs
```

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RT   with HMG-box proteins.";
RL   Nucleic Acids Res. 19:4769-4769(1991).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=cv. Essex; TISSUE=Root;
RA   Mahalingam R., Knap H.T.;
RL   Submitted (FEB-1998) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF047050; AAC03556.1; -.
FT   NON_TER       1       1
SQ   SEQUENCE   7 AA;  850 MW;  6AAAAAB378637810 CRC64;

  Query Match             26.0%;  Score 13;  DB 10;  Length 7;
  Best Local Similarity   33.3%;  Pred. No. 8.3e+05;
  Matches    1;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 WSY 3
              | :
Db          2 WGW 4


RESULT 15
O09258
ID   O09258      PRELIMINARY;      PRT;     8 AA.
AC   O09258;
DT   01-JUL-1997 (TrEMBLrel. 04, Created)
DT   01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   NifH (Fragment).
GN   NIFH.
OS   Synechococcus sp. (strain PCC 8801 / RF-1) (Cyanothece PCC 8801).
OC   Bacteria; Cyanobacteria; Chroococcales; Cyanothece.
OX   NCBI_TaxID=41431;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=RF-1;
RX   MEDLINE=99231861; PubMed=10217509;
RA   Huang T.C., Lin R.F., Chu M.K., Chen H.M.;
RT   "Organization and expression of nitrogen-fixation genes in the aerobic
RT   nitrogen-fixing unicellular cyanobacterium Synechococcus sp. strain
RT   RF-1.";
RL   Microbiology 145:743-753(1999).
DR   EMBL; AF001780; AAC33369.1; -.
FT   NON_TER       8       8
SQ   SEQUENCE   8 AA;  985 MW;  F16B59CDD046C406 CRC64;

  Query Match             26.0%;  Score 13;  DB 2;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 YG 4
              ||
Db          7 YG 8


Search completed: November 17, 2003, 18:41:42
Job time : 33 secs
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OM protein - protein search, using sw model

Run on: November 17, 2003, 18:41:46 ; Search time 28 Seconds
(without alignments)
52.160 Million cell updates/sec

Title: US-09-462-089-3
Perfect score: 50
Sequence: 1 WSYGLRPG 8

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 666188 seqs, 182559486 residues

Total number of hits satisfying chosen parameters: 42944

Minimum DB seq length: 0
Maximum DB seq length: 8

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA:*
1: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
2: /cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*
3: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
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12: /cgn2_6/ptodata/2/pubpaa/US09_NEW_PUB.pep:*
13: /cgn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*
14: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*
15: /cgn2_6/ptodata/2/pubpaa/US10C_PUBCOMB.pep:*
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18: /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	33.5	67.0	8	12	US-10-351-641-1000	Sequence 1000, Ap
2	28	56.0	6	14	US-10-016-283-13	Sequence 13, Appl
3	28	56.0	7	9	US-09-265-606-4	Sequence 4, Appli
4	25	50.0	6	14	US-10-016-283-3	Sequence 3, Appli
5	25	50.0	8	12	US-10-089-549-10	Sequence 10, Appl
6	24	48.0	6	14	US-10-016-283-11	Sequence 11, Appl
7	24	48.0	7	15	US-10-193-709-17	Sequence 17, Appl
8	24	48.0	8	12	US-10-351-641-919	Sequence 919, App
9	23	46.0	7	10	US-09-911-838-173	Sequence 173, App
10	22	44.0	4	9	US-09-873-676-106	Sequence 106, App
11	22	44.0	6	10	US-09-847-940B-15	Sequence 15, Appl
12	22	44.0	6	11	US-09-847-946A-15	Sequence 15, Appl
13	22	44.0	7	9	US-09-873-676-97	Sequence 97, Appl
14	22	44.0	7	12	US-10-292-418-43	Sequence 43, Appl
15	22	44.0	7	12	US-10-239-555A-4	Sequence 4, Appli
16	22	44.0	8	9	US-09-012-135A-33	Sequence 33, Appl
17	22	44.0	8	12	US-10-316-253-172	Sequence 172, App
18	22	44.0	8	12	US-10-040-336-1	Sequence 1, Appli
19	22	44.0	8	12	US-10-239-555A-16	Sequence 16, Appl
20	22	44.0	8	15	US-10-133-210-160	Sequence 160, App
21	21	42.0	6	14	US-10-156-820-90	Sequence 90, Appl
22	21	42.0	7	9	US-09-832-312-71	Sequence 71, Appl
23	21	42.0	7	12	US-10-156-255-1	Sequence 1, Appli
24	21	42.0	8	9	US-09-012-135A-29	Sequence 29, Appl
25	20	40.0	6	10	US-09-905-999-19	Sequence 19, Appl
26	20	40.0	6	14	US-10-046-922-54	Sequence 54, Appl
27	20	40.0	6	14	US-10-016-283-9	Sequence 9, Appli
28	20	40.0	6	14	US-10-087-993-8	Sequence 8, Appli
29	20	40.0	7	9	US-09-731-242A-38	Sequence 38, Appl
30	20	40.0	7	9	US-09-898-461-15	Sequence 15, Appl
31	20	40.0	7	11	US-09-904-968A-58	Sequence 58, Appl
32	20	40.0	7	11	US-09-158-722-28	Sequence 28, Appl
33	20	40.0	7	11	US-09-281-495-6	Sequence 6, Appli
34	20	40.0	7	11	US-09-954-385-67	Sequence 67, Appl
35	20	40.0	7	12	US-10-006-760-34	Sequence 34, Appl
36	20	40.0	8	8	US-08-987-689A-4	Sequence 4, Appli
37	20	40.0	8	8	US-08-987-689A-14	Sequence 14, Appl
38	20	40.0	8	8	US-08-987-689A-18	Sequence 18, Appl
39	20	40.0	8	8	US-08-424-550B-564	Sequence 564, App
40	20	40.0	8	12	US-10-071-962-20	Sequence 20, Appl
41	20	40.0	8	12	US-10-351-641-1609	Sequence 1609, Ap
42	20	40.0	8	12	US-10-089-549-6	Sequence 6, Appli
43	20	40.0	8	14	US-10-012-756-4	Sequence 4, Appli
44	20	40.0	8	14	US-10-012-756-6	Sequence 6, Appli
45	20	40.0	8	14	US-10-012-756-34	Sequence 34, Appl

ALIGNMENTS

RESULT 1
US-10-351-641-1000
; Sequence 1000, Application US/10351641
; Publication No. US20030186874A1
; GENERAL INFORMATION:
; APPLICANT: Barney, S.
; APPLICANT: Guthrie, K.
; APPLICANT: Merutka, G.
; APPLICANT: Anwer, M.
; APPLICANT: Lambert, D.
; TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC
; TITLE OF INVENTION: PROPERTIES
; FILE REFERENCE: 7872-100
; CURRENT APPLICATION NUMBER: US/10/351,641
; CURRENT FILING DATE: 2003-01-24
; PRIOR APPLICATION NUMBER: 09/350,641
; PRIOR FILING DATE: 1999-07-09
; PRIOR APPLICATION NUMBER: 09/315,304
; PRIOR FILING DATE: 1999-05-20
; PRIOR APPLICATION NUMBER: 09/082,279
; PRIOR FILING DATE: 1998-05-20
; NUMBER OF SEQ ID NOS: 1757
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1000
; LENGTH: 8
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Core polypeptide
US-10-351-641-1000

Query Match 67.0%; Score 33.5; DB 12; Length 8;
Best Local Similarity 87.5%; Pred. No. 5.9e+05;
Matches 7; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

```
Qy          1 WSYGLRPG 8
              ||| ||||
Db          2 WSY-LRPG 8
```

```
RESULT 2
US-10-016-283-13
; Sequence 13, Application US/10016283
; Publication No. US20020164702A1
; GENERAL INFORMATION:
;  APPLICANT: Valenzuela et al., David M.
;  TITLE OF INVENTION: NOVEL TYROSINE KINASE RECEPTORS AND LIGANDS
;  FILE REFERENCE: REG195-B-PCT-US
;  CURRENT APPLICATION NUMBER: US/10/016,283
;  CURRENT FILING DATE:  2001-11-30
;  PRIOR APPLICATION NUMBER: US/09/077,955A
;  PRIOR FILING DATE: 1998-09-10
;  PRIOR APPLICATION NUMBER: PCT/US96/20696
;  PRIOR FILING DATE: 1996-12-13
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
;   LENGTH: 6
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: primer
US-10-016-283-13

  Query Match             56.0%;  Score 28;  DB 14;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 5.9e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYG 4
              ||||
Db          3 WSYG 6


RESULT 3
US-09-265-606-4
; Sequence 4, Application US/09265606
; Patent No. US20020034789A1
;  GENERAL INFORMATION:
;    APPLICANT:  Zimmermann, Rainer; Park, John E.;
;    APPLICANT:  Rettig, Wolfgang; Old, Lloyd J.
;    TITLE OF INVENTION:  ISOLATED DIMERIC FIBROBLAST ACTIVATION PROTEIN
;    TITLE OF INVENTION:  ALPHA, AND USES THEREOF
;    NUMBER OF SEQUENCES:  10
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Felfe & Lynch
;      STREET:  805 Third Avenue
;      CITY:  New York City
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10022
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette, 3.5 inch, 2.0 MB  storage
;      COMPUTER:  IBM PS/2
;      OPERATING SYSTEM:  PC-DOS
;      SOFTWARE:  Wordperfect
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/265,606
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/619,280
;      FILING DATE:  18-MARCH-1996
;      APPLICATION NUMBER:  08/230,491
;      FILING DATE:  20-APRIL-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Hanson, No. US20020034789Alman D.
;      REGISTRATION NUMBER:  30,946
;      REFERENCE/DOCKET NUMBER:  LUD 5330.1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 688-9200
;      TELEFAX:  (212) 838-3884
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  7 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    FEATURE:
;      OTHER INFORMATION:  The first Xaa is either Trp or Phe.
US-09-265-606-4

  Query Match             56.0%;  Score 28;  DB 9;  Length 7;
  Best Local Similarity   100.0%;  Pred. No. 5.9e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYG 4
              ||||
Db          3 WSYG 6


RESULT 4
US-10-016-283-3
; Sequence 3, Application US/10016283
; Publication No. US20020164702A1
; GENERAL INFORMATION:
;  APPLICANT: Valenzuela et al., David M.
;  TITLE OF INVENTION: NOVEL TYROSINE KINASE RECEPTORS AND LIGANDS
;  FILE REFERENCE: REG195-B-PCT-US
;  CURRENT APPLICATION NUMBER: US/10/016,283
;  CURRENT FILING DATE:  2001-11-30
;  PRIOR APPLICATION NUMBER: US/09/077,955A
;  PRIOR FILING DATE: 1998-09-10
;  PRIOR APPLICATION NUMBER: PCT/US96/20696
;  PRIOR FILING DATE: 1996-12-13
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
;   LENGTH: 6
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: primer
US-10-016-283-3

  Query Match             50.0%;  Score 25;  DB 14;  Length 6;
  Best Local Similarity   75.0%;  Pred. No. 5.9e+05;
  Matches    3;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYG 4
              |:||
Db          3 WAYG 6


RESULT 5
US-10-089-549-10
; Sequence 10, Application US/10089549
; Publication No. US20030194762A1
; GENERAL INFORMATION:
;  APPLICANT: KUBOTA, Michio
;  APPLICANT:  TSUSAKI, Keiji
;  APPLICANT:  HIGASHIYAMA, Takanobu
;  APPLICANT:  FUKUDA, Shigeharu
;  APPLICANT:  MIYAKE, Toshio
;  TITLE OF INVENTION: ALPHA-ISOMALTOSYLGLUCOSACCHARIDE-FORMING ENZYME, PROCESS AND USES
;  TITLE OF INVENTION:  SAME
;  FILE REFERENCE: KUBOTA=9
;  CURRENT APPLICATION NUMBER: US/10/089,549
;  CURRENT FILING DATE:  2002-12-13
;  PRIOR APPLICATION NUMBER: JP 233364/2000
;  PRIOR FILING DATE: 2000-08-01
;  PRIOR APPLICATION NUMBER: JP 234937/2000
;  PRIOR FILING DATE: 2000-08-02
;  PRIOR APPLICATION NUMBER: PCT/JP01/06412
;  PRIOR FILING DATE: 2001-07-25
;  NUMBER OF SEQ ID NOS: 19
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;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 10
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Bacillus globisporus
US-10-089-549-10

  Query Match             50.0%;  Score 25;  DB 12;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 5.9e+05;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGL 5
              |::||
Db          1 WAFGL 5


RESULT 6
US-10-016-283-11
; Sequence 11, Application US/10016283
; Publication No. US20020164702A1
; GENERAL INFORMATION:
;  APPLICANT: Valenzuela et al., David M.
;  TITLE OF INVENTION: NOVEL TYROSINE KINASE RECEPTORS AND LIGANDS
;  FILE REFERENCE: REG195-B-PCT-US
;  CURRENT APPLICATION NUMBER: US/10/016,283
;  CURRENT FILING DATE:  2001-11-30
;  PRIOR APPLICATION NUMBER: US/09/077,955A
;  PRIOR FILING DATE: 1998-09-10
;  PRIOR APPLICATION NUMBER: PCT/US96/20696
;  PRIOR FILING DATE: 1996-12-13
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 11
;   LENGTH: 6
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: primer
US-10-016-283-11

  Query Match             48.0%;  Score 24;  DB 14;  Length 6;
  Best Local Similarity   75.0%;  Pred. No. 5.9e+05;
  Matches    3;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYG 4
              ||:|
Db          3 WSFG 6


RESULT 7
US-10-193-709-17
; Sequence 17, Application US/10193709
; Publication No. US20030092079A1
; GENERAL INFORMATION:
;  APPLICANT: Schlessinger, Joseph
;  APPLICANT:  Gishizky, Mikhail
;  APPLICANT:  Pendergast, Ann
;  TITLE OF INVENTION: METHODS FOR IDENTIFYING COMPOUNDS FOR TREATMENT OF CELL
;  TITLE OF INVENTION:  PROLIFERATIVE DISORDERS ASSOCIATED WITH ADAPTOR PROTEIN INTERACT
;  FILE REFERENCE: 7683-158
;  CURRENT APPLICATION NUMBER: US/10/193,709
;  CURRENT FILING DATE:  2002-07-12
;  PRIOR APPLICATION NUMBER: US/09/393,585
;  PRIOR FILING DATE: 1999-09-09
;  PRIOR APPLICATION NUMBER: 08/449,648
;  PRIOR FILING DATE: 1995-05-24
;  PRIOR APPLICATION NUMBER: 08/127,922
;  PRIOR FILING DATE: 1993-09-28
;  PRIOR APPLICATION NUMBER: 08/246,441
;  PRIOR FILING DATE: 1994-05-20
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 17
;   LENGTH: 7
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: conserved
;   OTHER INFORMATION: motif
US-10-193-709-17

  Query Match             48.0%;  Score 24;  DB 15;  Length 7;
  Best Local Similarity   75.0%;  Pred. No. 5.9e+05;
  Matches    3;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYG 4
              ||:|
Db          4 WSFG 7


RESULT 8
US-10-351-641-919
; Sequence 919, Application US/10351641
; Publication No. US20030186874A1
; GENERAL INFORMATION:
;  APPLICANT: Barney, S.
;  APPLICANT:  Guthrie, K.
;  APPLICANT:  Merutka, G.
;  APPLICANT:  Anwer, M.
;  APPLICANT:  Lambert, D.
;  TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC
;  TITLE OF INVENTION:  PROPERTIES
;  FILE REFERENCE: 7872-100
;  CURRENT APPLICATION NUMBER: US/10/351,641
;  CURRENT FILING DATE:  2003-01-24
;  PRIOR APPLICATION NUMBER: 09/350,641
;  PRIOR FILING DATE: 1999-07-09
;  PRIOR APPLICATION NUMBER: 09/315,304
;  PRIOR FILING DATE: 1999-05-20
;  PRIOR APPLICATION NUMBER: 09/082,279
;  PRIOR FILING DATE: 1998-05-20
;  NUMBER OF SEQ ID NOS: 1757
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 919
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Core polypeptide
US-10-351-641-919

  Query Match             48.0%;  Score 24;  DB 12;  Length 8;
  Best Local Similarity   75.0%;  Pred. No. 5.9e+05;
  Matches    3;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 WSYG 4
              | ||
Db          3 WGYG 6


RESULT 9
US-09-911-838-173
; Sequence 173, Application US/09911838
; Patent No. US20020151678A1
; GENERAL INFORMATION:
;  APPLICANT: ARLINGHAUS, RALPH
;  TITLE OF INVENTION: PROPHYLAXIS AND THERAPY OF ACQUIRED IMMUNODEFICIENCY
;  TITLE OF INVENTION:  SYNDROME
;  FILE REFERENCE: UTSC:267USC1
;  CURRENT APPLICATION NUMBER: US/09/911,838
;  CURRENT FILING DATE:  2001-07-24
;  PRIOR APPLICATION NUMBER: 07/834,923
;  PRIOR FILING DATE: 1992-02-13
;  NUMBER OF SEQ ID NOS: 226
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 173
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;   LENGTH: 7
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Synthetic
;   OTHER INFORMATION: Peptide
US-09-911-838-173

  Query Match             46.0%;  Score 23;  DB 10;  Length 7;
  Best Local Similarity   42.9%;  Pred. No. 5.9e+05;
  Matches    3;  Conservative    1;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          1 WSYGLRP 7
              |   |:|
Db          1 WDQSLKP 7


RESULT 10
US-09-873-676-106
; Sequence 106, Application US/09873676
; Patent No. US20020077289A1
; GENERAL INFORMATION:
;  APPLICANT: MacDonald, Nicholas J.
;  APPLICANT:  Sim, Kim L.
;  TITLE OF INVENTION: Angiostatin and Endostatin Binding Proteins and Methods of Use
;  FILE REFERENCE: 05213-0378 (43170-259333)
;  CURRENT APPLICATION NUMBER: US/09/873,676
;  CURRENT FILING DATE:  2001-06-04
;  PRIOR APPLICATION NUMBER: US 60/209,065
;  PRIOR FILING DATE: 2000-06-02
;  PRIOR APPLICATION NUMBER: US 60/289,387
;  PRIOR FILING DATE: 2001-05-08
;  NUMBER OF SEQ ID NOS: 123
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 106
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Peptide
US-09-873-676-106

  Query Match             44.0%;  Score 22;  DB 9;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 5.9e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSY 3
              |||
Db          1 WSY 3


RESULT 11
US-09-847-940B-15
; Sequence 15, Application US/09847940B
; Patent No. US20020156000A1
; GENERAL INFORMATION:
;  APPLICANT: May, Michael J.
;  APPLICANT:  Ghosh, Sankar
;  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
;  FILE REFERENCE: PPI-117CP
;  CURRENT APPLICATION NUMBER: US/09/847,940B
;  CURRENT FILING DATE:  2001-05-02
;  PRIOR APPLICATION NUMBER: 09/643,260
;  PRIOR FILING DATE: 2000-08-22
;  NUMBER OF SEQ ID NOS: 27
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 15
;   LENGTH: 6
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:NBD mutants
US-09-847-940B-15

  Query Match             44.0%;  Score 22;  DB 10;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 5.9e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSY 3
              |||
Db          3 WSY 5


RESULT 12
US-09-847-946A-15
; Sequence 15, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
;  APPLICANT: May, Michael J
;  APPLICANT:  Ghosh, Sankar
;  APPLICANT:  Findeis, Mark A
;  APPLICANT:  Phillips, Kathryn
;  APPLICANT:  Hannig, Gerhard
;  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
;  FILE REFERENCE: PPI-119
;  CURRENT APPLICATION NUMBER: US/09/847,946A
;  CURRENT FILING DATE:  2001-05-02
;  PRIOR APPLICATION NUMBER: 60/201,261
;  PRIOR FILING DATE: 2000-05-02
;  PRIOR APPLICATION NUMBER: 09/643,260
;  PRIOR FILING DATE: 2000-08-22
;  NUMBER OF SEQ ID NOS: 160
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 15
;   LENGTH: 6
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:NBD peptide
US-09-847-946A-15

  Query Match             44.0%;  Score 22;  DB 11;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 5.9e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSY 3
              |||
Db          3 WSY 5


RESULT 13
US-09-873-676-97
; Sequence 97, Application US/09873676
; Patent No. US20020077289A1
; GENERAL INFORMATION:
;  APPLICANT: MacDonald, Nicholas J.
;  APPLICANT:  Sim, Kim L.
;  TITLE OF INVENTION: Angiostatin and Endostatin Binding Proteins and Methods of Use
;  FILE REFERENCE: 05213-0378 (43170-259333)
;  CURRENT APPLICATION NUMBER: US/09/873,676
;  CURRENT FILING DATE:  2001-06-04
;  PRIOR APPLICATION NUMBER: US 60/209,065
;  PRIOR FILING DATE: 2000-06-02
;  PRIOR APPLICATION NUMBER: US 60/289,387
;  PRIOR FILING DATE: 2001-05-08
;  NUMBER OF SEQ ID NOS: 123
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 97
;   LENGTH: 7
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Peptide
US-09-873-676-97

  Query Match             44.0%;  Score 22;  DB 9;  Length 7;
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Best Local Similarity 100.0%; Pred. No. 5.9e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WSY 3
||||
Db 1 WSY 3

RESULT 14
US-10-292-418-43
; Sequence 43, Application US/10292418
; Publication No. US20030139365A1
; GENERAL INFORMATION:
; APPLICANT: Lo, Kin-Ming
; APPLICANT: Li, Yue
; APPLICANT: Gillies, Stephen D
; TITLE OF INVENTION: Expression and Export of Angiogenesis Inhibitors as
; TITLE OF INVENTION: Immunofusins
; FILE REFERENCE: LEX-006C1
; CURRENT APPLICATION NUMBER: US/10/292,418
; CURRENT FILING DATE: 2002-11-12
; PRIOR APPLICATION NUMBER: 09/383,315
; PRIOR FILING DATE: 1999-08-25
; PRIOR APPLICATION NUMBER: US 60/097,883
; PRIOR FILING DATE: 1998-08-25
; NUMBER OF SEQ ID NOS: 54
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 43
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:Mutagenic
; OTHER INFORMATION: primer for murine angiostatin
US-10-292-418-43

Query Match 44.0%; Score 22; DB 12; Length 7;
Best Local Similarity 100.0%; Pred. No. 5.9e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WSY 3
||||
Db 3 WSY 5

RESULT 15
US-10-239-555A-4
; Sequence 4, Application US/10239555A
; Publication No. US20030186325A1
; GENERAL INFORMATION:
; APPLICANT: BARRY, SIMON
; APPLICANT: HORGAN, CARMEL
; APPLICANT: LUDBROOK, STEPHEN
; TITLE OF INVENTION: METHOD OF SCREENING FOR INHIBITORS OF
; TITLE OF INVENTION: OSTEOPONTIN
; FILE REFERENCE: PG3848
; CURRENT APPLICATION NUMBER: US/10/239,555A
; CURRENT FILING DATE: 2003-03-17
; PRIOR APPLICATION NUMBER: PCT/GB01/01287
; PRIOR FILING DATE: 2001-03-23
; PRIOR APPLICATION NUMBER: GB 0106146.4
; PRIOR FILING DATE: 2001-03-13
; PRIOR APPLICATION NUMBER: GB 0007101.9
; PRIOR FILING DATE: 2000-03-23
; NUMBER OF SEQ ID NOS: 56
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-239-555A-4

Query Match 44.0%; Score 22; DB 12; Length 7;
Best Local Similarity 100.0%; Pred. No. 5.9e+05;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 3 YGLR 6
||||
Db 4 YGLR 7

Search completed: November 17, 2003, 18:46:56
Job time : 29 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:39:46 ; Search time 21 Seconds
(without alignments)
16.118 Million cell updates/sec

Title: US-09-462-089-3
Perfect score: 50
Sequence: 1 WSYGLRPG 8

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 61971

Minimum DB seq length: 0
Maximum DB seq length: 8

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	50	100.0	8	1	US-08-343-883-2	Sequence 2, Appli
2	44	88.0	7	2	US-08-871-689-2	Sequence 2, Appli
3	40	80.0	7	2	US-08-871-689-4	Sequence 4, Appli
4	33.5	67.0	8	3	US-09-082-279B-1000	Sequence 1000, Ap
5	33.5	67.0	8	4	US-09-315-304B-1000	Sequence 1000, Ap
6	33.5	67.0	8	4	US-09-834-784-1000	Sequence 1000, Ap
7	31	62.0	7	2	US-08-871-689-3	Sequence 3, Appli
8	28	56.0	5	5	PCT-US93-07923-15	Sequence 15, Appl
9	28	56.0	6	1	US-08-374-834-13	Sequence 13, Appl
10	28	56.0	6	2	US-08-644-271-13	Sequence 13, Appl
11	28	56.0	6	2	US-08-469-537A-95	Sequence 95, Appl
12	28	56.0	6	4	US-09-077-955-13	Sequence 13, Appl
13	28	56.0	7	1	US-08-619-280A-4	Sequence 4, Appli
14	26	52.0	7	4	US-09-463-947-4	Sequence 4, Appli
15	25.5	51.0	7	1	US-08-332-071B-12	Sequence 12, Appl
16	25	50.0	6	1	US-08-374-834-3	Sequence 3, Appli
17	25	50.0	6	2	US-08-644-271-3	Sequence 3, Appli
18	25	50.0	6	4	US-09-077-955-3	Sequence 3, Appli
19	25	50.0	7	1	US-07-822-275-4	Sequence 4, Appli
20	25	50.0	7	1	US-08-286-262-4	Sequence 4, Appli
21	25	50.0	8	2	US-08-318-837-30	Sequence 30, Appl
22	24.5	49.0	8	5	PCT-US94-01321-63	Sequence 63, Appl
23	24	48.0	5	1	US-08-522-326-17	Sequence 17, Appl
24	24	48.0	6	1	US-08-374-834-11	Sequence 11, Appl
25	24	48.0	6	2	US-08-644-271-11	Sequence 11, Appl
26	24	48.0	6	2	US-08-469-537A-94	Sequence 94, Appl
27	24	48.0	6	3	US-09-196-934-5	Sequence 5, Appli
28	24	48.0	6	4	US-09-077-955-11	Sequence 11, Appl
29	24	48.0	7	3	US-08-472-595-8	Sequence 8, Appli
30	24	48.0	7	3	US-08-207-575A-8	Sequence 8, Appli
31	24	48.0	7	3	US-08-246-441-17	Sequence 17, Appl
32	24	48.0	7	4	US-09-393-585-17	Sequence 17, Appl
33	24	48.0	8	3	US-09-082-279B-919	Sequence 919, App
34	24	48.0	8	4	US-09-315-304B-919	Sequence 919, App
35	24	48.0	8	4	US-09-834-784-919	Sequence 919, App
36	23	46.0	6	2	US-09-127-574-15	Sequence 15, Appl
37	23	46.0	7	1	US-07-822-275-2	Sequence 2, Appli
38	23	46.0	7	1	US-08-286-262-2	Sequence 2, Appli
39	22	44.0	4	3	US-08-812-586-60	Sequence 60, Appl
40	22	44.0	4	4	US-09-535-832A-56	Sequence 56, Appl
41	22	44.0	5	1	US-08-022-381A-22	Sequence 22, Appl
42	22	44.0	5	1	US-08-475-827A-22	Sequence 22, Appl
43	22	44.0	5	1	US-07-789-184-163	Sequence 163, App
44	22	44.0	5	1	US-08-475-263-163	Sequence 163, App
45	22	44.0	5	1	US-08-485-886-163	Sequence 163, App

ALIGNMENTS

RESULT 1
US-08-343-883-2
; Sequence 2, Application US/08343883
; Patent No. 5573767
; GENERAL INFORMATION:
; APPLICANT: Dufour, Raymond J.
; APPLICANT: Roulet, Claude J.M.
; APPLICANT: Chouvet, Claire D.
; APPLICANT: Bonneau, Michel B.
; TITLE OF INVENTION: Method for improving the organoleptic
; TITLE OF INVENTION: qualities of the meat from uncastrated male domestic
; TITLE OF INVENTION: animals, vaccines which are usable in this method, new
; TITLE OF INVENTION: peptide, in particular for producing these vaccines...
; NUMBER OF SEQUENCES: 2
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Larson and Taylor
; STREET: 727 Twenty-Third Street, South
; CITY: Arlington
; STATE: Virginia
; COUNTRY: USA
; ZIP: 22202
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/343,883
; FILING DATE: 17-NOV-1994
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/946,495
; FILING DATE: 09-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: FR 9102513
; FILING DATE: 01-MAR-1991
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: FR 9115289
; FILING DATE: 10-DEC-1991
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 8 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; NAME/KEY: Peptide
; LOCATION: 8
; OTHER INFORMATION: /label= NH2
; OTHER INFORMATION: /note= "amidated glycine"

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;    PUBLICATION INFORMATION:
;      AUTHORS:  Schally, A. V.
;      AUTHORS:  Arimura, A.
;      AUTHORS:  Carter, W. H.
;      AUTHORS:  Redding, T. W.
;      AUTHORS:  Geiger, R.
;      AUTHORS:  Konig, W.
;      AUTHORS:  Wissman, H.
;      AUTHORS:  Jaeger, G.
;      AUTHORS:  Sandow, J.
;      AUTHORS:  Yanaihara, N.
;      TITLE:  Luteinizing hormone-relaesing hormone (LH-RH)
;      TITLE:  activity of some synthetic polypeptides. I.
;      TITLE:  Fragments shorter than decapeptide.
;      JOURNAL:  Biochem. Biophys. Res. Commun.
;      VOLUME:  48
;      ISSUE:  2
;      PAGES:  366-375
;      DATE:  1972
;      RELEVANT RESIDUES IN SEQ ID NO:  2: FROM 1 TO 8
US-08-343-883-2

  Query Match             100.0%;  Score 50;  DB 1;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGLRPG 8
              ||||||||
Db          1 WSYGLRPG 8


RESULT 2
US-08-871-689-2
; Sequence 2, Application US/08871689
; Patent No. 5955080
;  GENERAL INFORMATION:
;    APPLICANT:  REILLY, WAYNE G.
;    APPLICANT:  WHITTAKER, ROBERT G.
;    APPLICANT:  JENNINGS, PHILLIP A.
;    APPLICANT:  FINNEY, KENNETH G.
;    TITLE OF INVENTION:  SELF-ADJUVANTING PEPTIDE VACCINE
;    TITLE OF INVENTION:  DELIVERY SYSTEM AND PRODUCTION THEREOF
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  LOWE, PRICE, LEBLANC & BECKER
;      STREET:  99 CANAL CENTER PLAZA, SUITE 300
;      CITY:  ALEXANDRIA
;      STATE:  VIRGINIA
;      COUNTRY:  U.S
;      ZIP:  22314
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/871,689
;      FILING DATE:  09-JUN-1997
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/185,878
;      FILING DATE:  03-MAY-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  MILLS, DEMETRA J.
;      REGISTRATION NUMBER:  34,506
;      REFERENCE/DOCKET NUMBER:  1451-004
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  703-684-1111
;      TELEFAX:  703-684-1124
;      TELEX:  AMERPAT
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  7 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
US-08-871-689-2

  Query Match             88.0%;  Score 44;  DB 2;  Length 7;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    7;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGLRP 7
              |||||||
Db          1 WSYGLRP 7


RESULT 3
US-08-871-689-4
; Sequence 4, Application US/08871689
; Patent No. 5955080
;  GENERAL INFORMATION:
;    APPLICANT:  REILLY, WAYNE G.
;    APPLICANT:  WHITTAKER, ROBERT G.
;    APPLICANT:  JENNINGS, PHILLIP A.
;    APPLICANT:  FINNEY, KENNETH G.
;    TITLE OF INVENTION:  SELF-ADJUVANTING PEPTIDE VACCINE
;    TITLE OF INVENTION:  DELIVERY SYSTEM AND PRODUCTION THEREOF
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  LOWE, PRICE, LEBLANC & BECKER
;      STREET:  99 CANAL CENTER PLAZA, SUITE 300
;      CITY:  ALEXANDRIA
;      STATE:  VIRGINIA
;      COUNTRY:  U.S
;      ZIP:  22314
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/871,689
;      FILING DATE:  09-JUN-1997
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/185,878
;      FILING DATE:  03-MAY-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  MILLS, DEMETRA J.
;      REGISTRATION NUMBER:  34,506
;      REFERENCE/DOCKET NUMBER:  1451-004
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  703-684-1111
;      TELEFAX:  703-684-1124
;      TELEX:  AMERPAT
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  7 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
US-08-871-689-4

  Query Match             80.0%;  Score 40;  DB 2;  Length 7;
  Best Local Similarity   85.7%;  Pred. No. 2.5e+05;
  Matches    6;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYGLRP 7
              |||||:|
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Db          1 WSYGLQP 7


RESULT 4
US-09-082-279B-1000
; Sequence 1000, Application US/09082279B
; Patent No. 6258782
; GENERAL INFORMATION:
;  APPLICANT:  Barney, Shawn
;  APPLICANT:  Guthrie, Kelly
;  APPLICANT:  Merutka, Gene
;  APPLICANT:  Anwer, Mohmed
;  APPLICANT:  Lambert, Dennis
;  TITLE OF INVENTION:  HYBRID POLYPEPTIDES WITH ENHANCED
;  TITLE OF INVENTION:  PHARMACOKINETIC PROPERTIES
;  FILE REFERENCE:  7872-043
;  CURRENT APPLICATION NUMBER: US/09/082,279B
;  CURRENT FILING DATE:  1998-05-20
;  NUMBER OF SEQ ID NOS:  1515
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 1000
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Core polypeptide
US-09-082-279B-1000

  Query Match             67.0%;  Score 33.5;  DB 3;  Length 8;
  Best Local Similarity   87.5%;  Pred. No. 2.5e+05;
  Matches    7;  Conservative    0;  Mismatches    0;  Indels    1;  Gaps    1;

Qy          1 WSYGLRPG 8
              ||| ||||
Db          2 WSY-LRPG 8


RESULT 5
US-09-315-304B-1000
; Sequence 1000, Application US/09315304B
; Patent No. 6348568
; GENERAL INFORMATION:
;  APPLICANT: Barney, S.
;  APPLICANT:  Guthrie, K.
;  APPLICANT:  Merutka, G.
;  APPLICANT:  Anwer, M.
;  APPLICANT:  Lambert, D.
;  TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC
;  TITLE OF INVENTION:  PROPERTIES
;  FILE REFERENCE: 7872-052
;  CURRENT APPLICATION NUMBER: US/09/315,304B
;  CURRENT FILING DATE:  1999-05-20
;  PRIOR APPLICATION NUMBER: 09/082,279
;  PRIOR FILING DATE: 1998-05-20
;  NUMBER OF SEQ ID NOS: 1667
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1000
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Core polypeptide
US-09-315-304B-1000

  Query Match             67.0%;  Score 33.5;  DB 4;  Length 8;
  Best Local Similarity   87.5%;  Pred. No. 2.5e+05;
  Matches    7;  Conservative    0;  Mismatches    0;  Indels    1;  Gaps    1;

Qy          1 WSYGLRPG 8
              ||| ||||
Db          2 WSY-LRPG 8


RESULT 6
US-09-834-784-1000
; Sequence 1000, Application US/09834784
; Patent No. 6562787
; GENERAL INFORMATION:
;  APPLICANT: Barney, Shawn
;  APPLICANT:  Guthrie, Kelly
;  APPLICANT:  Merutka, Gene
;  APPLICANT:  Anwer, Mohmed
;  APPLICANT:  Lambert, Dennis
;  TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
;  TITLE OF INVENTION:  PHARMACOKINETIC PROPERTIES
;  FILE REFERENCE: 7872-043
;  CURRENT APPLICATION NUMBER: US/09/834,784
;  CURRENT FILING DATE:  2001-04-13
;  PRIOR APPLICATION NUMBER: 09/082,279
;  PRIOR FILING DATE: 1998-05-20
;  NUMBER OF SEQ ID NOS: 1515
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1000
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Core polypeptide
US-09-834-784-1000

  Query Match             67.0%;  Score 33.5;  DB 4;  Length 8;
  Best Local Similarity   87.5%;  Pred. No. 2.5e+05;
  Matches    7;  Conservative    0;  Mismatches    0;  Indels    1;  Gaps    1;

Qy          1 WSYGLRPG 8
              ||| ||||
Db          2 WSY-LRPG 8


RESULT 7
US-08-871-689-3
; Sequence 3, Application US/08871689
; Patent No. 5955080
;  GENERAL INFORMATION:
;    APPLICANT:  REILLY, WAYNE G.
;    APPLICANT:  WHITTAKER, ROBERT G.
;    APPLICANT:  JENNINGS, PHILLIP A.
;    APPLICANT:  FINNEY, KENNETH G.
;    TITLE OF INVENTION:  SELF-ADJUVANTING PEPTIDE VACCINE
;    TITLE OF INVENTION:  DELIVERY SYSTEM AND PRODUCTION THEREOF
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  LOWE, PRICE, LEBLANC & BECKER
;      STREET:  99 CANAL CENTER PLAZA, SUITE 300
;      CITY:  ALEXANDRIA
;      STATE:  VIRGINIA
;      COUNTRY:  U.S
;      ZIP:  22314
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/871,689
;      FILING DATE:  09-JUN-1997
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/185,878
;      FILING DATE:  03-MAY-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  MILLS, DEMETRA J.
;      REGISTRATION NUMBER:  34,506
;      REFERENCE/DOCKET NUMBER:  1451-004
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  703-684-1111
```

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;       TELEFAX:  703-684-1124
;       TELEX:  AMERPAT
;   INFORMATION FOR SEQ ID NO:  3:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  7 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  protein
;     HYPOTHETICAL:  NO
;     ANTI-SENSE:  NO
US-08-871-689-3

  Query Match             62.0%;  Score 31;  DB 2;  Length 7;
  Best Local Similarity   71.4%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 WSYGLRP 7
              ||||  |
Db          1 WSYGWLP 7


RESULT 8
PCT-US93-07923-15
; Sequence 15, Application PC/TUS9307923
;  GENERAL INFORMATION:
;     APPLICANT:  Morimoto, Chikao
;     APPLICANT:  Schlossman, Stuart F.
;     APPLICANT:  Tanaka, Toshiaki
;     TITLE OF INVENTION:  HUMAN CD26 AND METHODS FOR USE
;     NUMBER OF SEQUENCES:  16
;     CORRESPONDENCE ADDRESS:
;       ADDRESSEE:  Fish & Richardson
;       STREET:  225 Franklin Street
;       CITY:  Boston
;       STATE:  Massachusetts
;       COUNTRY:  U.S.A.
;       ZIP:  02110-2804
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;       COMPUTER:  IBM PS/2 Model 50Z or 55SX
;       OPERATING SYSTEM:  IBM P.C. DOS (Version 3.30)
;       SOFTWARE:  WordPerfect (Version 5.0)
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  PCT/US93/07923
;       FILING DATE:  19930819
;       CLASSIFICATION:
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  07/934,162
;       FILING DATE:  21-AUG-1992
;       APPLICATION NUMBER:  07/832,211
;       FILING DATE:  06-FEB-1992
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Fraser, Janis K.
;       REGISTRATION NUMBER:  34,819
;       REFERENCE/DOCKET NUMBER:  00530/055002
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (617) 542-5070
;       TELEFAX:  (617) 542-8906
;       TELEX:  200154
;   INFORMATION FOR SEQ ID NO:  15:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  5
;       TYPE:  amino acid
;       STRANDEDNESS:
;       TOPOLOGY:  linear
PCT-US93-07923-15

  Query Match             56.0%;  Score 28;  DB 5;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYG 4
                ||||
Db          2 WSYG 5


RESULT 9
US-08-374-834-13
; Sequence 13, Application US/08374834
; Patent No. 5656473
;  GENERAL INFORMATION:
;     APPLICANT:  Valenzuela, et al.
;     TITLE OF INVENTION:  NOVEL TYROSINE KINASE RECEPTOR
;     NUMBER OF SEQUENCES:  17
;     CORRESPONDENCE ADDRESS:
;       ADDRESSEE:  Regeneron Pharmaceuticals, Inc.
;       STREET:  777 Old Saw Mill River Road
;       CITY:  Tarrytown
;       STATE:  New York
;       COUNTRY:  USA
;       ZIP:  10591
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.30
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/374,834
;       FILING DATE:  19-JAN-1995
;       CLASSIFICATION:  435
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  US 08/095,658
;       FILING DATE:  21-JUL-1993
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Cobert, Robert J.
;       REGISTRATION NUMBER:  36,108
;       REFERENCE/DOCKET NUMBER:  REG 190A
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (914) 345-7400
;       TELEFAX:  (914) 345-7721
;   INFORMATION FOR SEQ ID NO:  13:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  6 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:
;       TOPOLOGY:  unknown
;     MOLECULE TYPE:  peptide
US-08-374-834-13

  Query Match             56.0%;  Score 28;  DB 1;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYG 4
                ||||
Db          3 WSYG 6


RESULT 10
US-08-644-271-13
; Sequence 13, Application US/08644271
; Patent No. 5814478
;  GENERAL INFORMATION:
;     APPLICANT:  Valenzuela, et al.
;     TITLE OF INVENTION:  NOVEL TYROSINE KINASE RECEPTORS
;     TITLE OF INVENTION:  AND LIGANDS
;     NUMBER OF SEQUENCES:  32
;     CORRESPONDENCE ADDRESS:
;       ADDRESSEE:  Regeneron Pharmaceuticals, Inc.
;       STREET:  777 Old Saw Mill Road
;       CITY:  Tarrytown
;       STATE:  NY
;       COUNTRY:  USA
;       ZIP:  10591
;     COMPUTER READABLE FORM:
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;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/644,271
;      FILING DATE:  10-MAY-1996
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  USSN 60/008,657
;      FILING DATE:  15-DEC-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Cobert, Robert J
;      REGISTRATION NUMBER:  36,108
;      REFERENCE/DOCKET NUMBER:  REG 195A
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  914-345-7400
;      TELEFAX:  914-345-7721
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  13:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  6 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-644-271-13

  Query Match             56.0%;  Score 28;  DB 2;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYG 4
              ||||
Db          3 WSYG 6


RESULT 11
US-08-469-537A-95
; Sequence 95, Application US/08469537A
; Patent No. 5843749
;  GENERAL INFORMATION:
;    APPLICANT:  Maisonpierre, et al.
;    TITLE OF INVENTION:  EHK AND ROR TYROSINE
;    TITLE OF INVENTION:  KINASES
;    NUMBER OF SEQUENCES:  107
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Regeneron Pharmaceuticals, Inc.
;      STREET:  777 Old Saw Mill River Road
;      CITY:  Tarrytown
;      STATE:  NY
;      COUNTRY:  U.S.A.
;      ZIP:  10591
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/469,537A
;      FILING DATE:  06-JUN-1995
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  USSN 08/406,247
;      FILING DATE:  17-MAR-1995
;      APPLICATION NUMBER:  USSN 08/144,992
;      FILING DATE:  28-OCT-1993
;      APPLICATION NUMBER:  USSN 07/736,559
;      FILING DATE:  26-JUL-1991
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Kempler, Ph.D., Gail M
;      REGISTRATION NUMBER:  32,143
;      REFERENCE/DOCKET NUMBER:  REG 070C
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  914-345-7400
;      TELEFAX:  914-345-7721
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  95:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  6 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  unknown
;    MOLECULE TYPE:  peptide
US-08-469-537A-95

  Query Match             56.0%;  Score 28;  DB 2;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYG 4
              ||||
Db          3 WSYG 6


RESULT 12
US-09-077-955-13
; Sequence 13, Application US/09077955A
; Patent No. 6413740
; GENERAL INFORMATION:
;  APPLICANT: Valenzuela et al., David M.
;  TITLE OF INVENTION: NOVEL TYROSINE KINASE RECEPTORS AND LIGANDS
;  FILE REFERENCE: REG195-B-PCT-US
;  CURRENT APPLICATION NUMBER: US/09/077,955A
;  CURRENT FILING DATE: 1998-09-10
;  EARLIER APPLICATION NUMBER: PCT/US96/20696
;  EARLIER FILING DATE: 1996-12-13
;  EARLIER APPLICATION NUMBER: 08/644,271
;  EARLIER FILING DATE: 1996-05-10
;  EARLIER APPLICATION NUMBER: 60/008,657
;  EARLIER FILING DATE: 1995-12-15
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
;   LENGTH: 6
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: primer
US-09-077-955-13

  Query Match             56.0%;  Score 28;  DB 4;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYG 4
              ||||
Db          3 WSYG 6


RESULT 13
US-08-619-280A-4
; Sequence 4, Application US/08619280A
; Patent No. 5767242
;  GENERAL INFORMATION:
;    APPLICANT:  Zimmermann, Rainer; Park, John E.;
;    APPLICANT:  Rettig, Wolfgang; Old, Lloyd J.
;    TITLE OF INVENTION:  ISOLATED DIMERIC FIBROBLAST ACTIVATION PROTEIN
;    TITLE OF INVENTION:  ALPHA, AND USES THEREOF
;    NUMBER OF SEQUENCES:  10
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Felfe & Lynch
;      STREET:  805 Third Avenue
;      CITY:  New York City
;      STATE:  New York
;      COUNTRY:  USA
```

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;       ZIP:  10022
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Diskette, 3.5 inch, 2.0 MB  storage
;       COMPUTER:  IBM PS/2
;       OPERATING SYSTEM:  PC-DOS
;       SOFTWARE:  Wordperfect
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/619,280A
;       FILING DATE:  18-MARCH-1996
;       CLASSIFICATION:  435
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  08/230,491
;       FILING DATE:  20-APRIL-1994
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Hanson, No. 5767242man D.
;       REGISTRATION NUMBER:  30,946
;       REFERENCE/DOCKET NUMBER:  LUD 5330.1
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (212) 688-9200
;       TELEFAX:  (212) 838-3884
;   INFORMATION FOR SEQ ID NO:  4:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  7 amino acids
;       TYPE:  amino acid
;       TOPOLOGY:  linear
;     FEATURE:
;       OTHER INFORMATION:  The first Xaa is either Trp or Phe.
US-08-619-280A-4

  Query Match             56.0%;  Score 28;  DB 1;  Length 7;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 WSYG 4
              ||||
Db          3 WSYG 6


RESULT 14
US-09-463-947-4
; Sequence 4, Application US/09463947
; Patent No. 6448031
; GENERAL INFORMATION:
;  APPLICANT: KASHIMOTO, KAZUHISA
;  APPLICANT:  NAGANO, YUMIKO
;  APPLICANT:  OHATA, AKIKO
;  TITLE OF INVENTION: METHOD FOR PRODUCING LH-RH DERIVATIVES
;  FILE REFERENCE: 7339-0002-0PCT
;  CURRENT APPLICATION NUMBER: US/09/463,947
;  CURRENT FILING DATE:  2000-02-04
;  PRIOR APPLICATION NUMBER: PCT/JP97/02705
;  PRIOR FILING DATE: 1997-08-04
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 4
;   LENGTH: 7
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
;   NAME/KEY: misc_feature
;   LOCATION: (3)..(3)
;   OTHER INFORMATION: Xaa is D-Leu, D-Ser(But), D-Trp, (2-napthyl)-D-Ala, or Gly
;   NAME/KEY: misc_feature
;   LOCATION: (7)..(7)
;   OTHER INFORMATION: Xaa is Gly-NH2, Azgly-NH2 or NHR2 (where R2 is lower alkyl)
US-09-463-947-4

  Query Match             52.0%;  Score 26;  DB 4;  Length 7;
  Best Local Similarity   83.3%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 SYGLRP 7
              || |||
Db          1 SYXLRP 6


RESULT 15
US-08-332-071B-12
; Sequence 12, Application US/08332071B
; Patent No. 5556836
;  GENERAL INFORMATION:
;    APPLICANT:  ROEDERN, ERICH G.
;    APPLICANT:  KESSLER, HORST
;    APPLICANT:  KUTSCHER, BERNHARD
;    APPLICANT:  BERND, MICHAEL
;    APPLICANT:  KLENNER, THOMAS
;    TITLE OF INVENTION:  USE OF D-GLUCOPHRANURONIC ACIDS AND
;    TITLE OF INVENTION:  THEIR DERIVATIVES FOR INCORPORATION IN PHARMACOLOGICALLY
;    TITLE OF INVENTION:  ACTIVE PEPTIDES AND THEIR SALTS
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  CUSHMAN DARBY & CUSHMAN, L.L.P.
;      STREET:  1100 NEW YORK AVENUE, N.W.
;      CITY:  WASHINGTON
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20005
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/332,071B
;      FILING DATE:  01-NOV-1994
;      CLASSIFICATION:  530
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  CHAPIN, MARLANA K.
;      REGISTRATION NUMBER:  35,843
;      REFERENCE/DOCKET NUMBER:  326/216933
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-861-3000
;      TELEFAX:  202-822-0944
;      TELEX:  6714627 CUSH
;  INFORMATION FOR SEQ ID NO:  12:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  7 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-332-071B-12

  Query Match             51.0%;  Score 25.5;  DB 1;  Length 7;
  Best Local Similarity   75.0%;  Pred. No. 2.5e+05;
  Matches    6;  Conservative    0;  Mismatches    1;  Indels    1;  Gaps    1;

Qy          1 WSYGLRPG 8
              ||  ||||
Db          1 WS-XLRPG 7


Search completed: November 17, 2003, 18:42:50
Job time : 22 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:27:39 ; Search time 13.5 Seconds
(without alignments)
64.112 Million cell updates/sec

Title: US-09-462-089-4
Perfect score: 48
Sequence: 1 GSGSGLRPG 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283308 seqs, 96168682 residues

Total number of hits satisfying chosen parameters: 789

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	21	43.8	9	2	S39437	D-amino-acid oxida
2	20	41.7	6	2	PT0280	Ig heavy chain CRD
3	20	41.7	8	2	PT0725	T-cell receptor be
4	19	39.6	5	2	C53284	T-cell receptor be
5	19	39.6	7	2	PT0689	T-cell receptor be
6	18	37.5	7	2	PT0543	T-cell receptor be
7	18	37.5	7	2	PT0581	T-cell receptor be
8	18	37.5	7	2	A58718	carnocin UI49 - Ca
9	18	37.5	9	2	PT0268	Ig heavy chain CRD
10	17	35.4	5	2	PT0572	T-cell receptor be
11	17	35.4	6	2	PT0605	T-cell receptor be
12	17	35.4	6	2	PT0668	T-cell receptor be
13	17	35.4	6	2	PT0723	T-cell receptor be
14	17	35.4	7	2	PT0719	T-cell receptor be
15	17	35.4	8	2	PT0279	Ig heavy chain CRD
16	17	35.4	9	2	D58503	translation elonga
17	17	35.4	9	2	PH0918	T-cell receptor be
18	16	33.3	5	2	D44823	synaptosomal-assoc
19	16	33.3	5	2	PT0703	T-cell receptor be
20	16	33.3	6	2	PT0604	T-cell receptor be
21	16	33.3	6	2	A41946	T-cell receptor ga
22	16	33.3	7	2	A38671	peptidylglycine mo
23	16	33.3	8	2	JS0315	leucokinin V - Mad
24	16	33.3	9	2	A44873	caldesmon - rabbit
25	16	33.3	9	2	QDRB	delta sleep-induci
26	16	33.3	9	2	PH1591	Ig H chain V-D-J r
27	15	31.2	5	2	PT0608	T-cell receptor be
28	15	31.2	6	2	I51434	H4 histone - Afric
29	15	31.2	6	2	PT0718	T-cell receptor be
30	15	31.2	7	2	A33098	244K exoantigen -
31	15	31.2	7	2	PT0515	T-cell receptor be
32	15	31.2	7	2	PT0663	T-cell receptor be
33	14	29.2	5	2	JN0862	peptidyl-dipeptida
34	14	29.2	5	2	C23751	spinal cord peptid
35	14	29.2	5	2	A41225	copper resistance
36	14	29.2	6	2	PT0589	T-cell receptor be
37	14	29.2	6	2	PT0593	T-cell receptor be
38	14	29.2	7	2	PT0529	T-cell receptor be
39	14	29.2	7	2	PT0623	T-cell receptor be
40	14	29.2	8	2	PH1618	Ig H chain V-D-J r
41	14	29.2	8	2	PT0627	T-cell receptor be
42	14	29.2	8	2	PT0631	T-cell receptor be
43	14	29.2	9	2	S59902	glutathione transf
44	14	29.2	9	2	PT0288	Ig heavy chain CRD
45	14	29.2	9	2	PC2197	zymogen granule me

ALIGNMENTS

RESULT 1
S39437
D-amino-acid oxidase (EC 1.4.3.3) - Trigonopsis variabilis (fragment)
C;Species: Trigonopsis variabilis
C;Date: 19-Mar-1997 #sequence_revision 05-Dec-1997 #text_change 07-May-1999
C;Accession: S39437
R;Schraeder, T.; Andreesen, J.R.
Eur. J. Biochem. 218, 735-744, 1993
A;Title: Evidence for the functional importance of Cys298 in D-amino acid oxidase from T
A;Reference number: S39437; MUID:94094869; PMID:7903639
A;Accession: S39437
A;Molecule type: protein
A;Residues: 1-9 <SCH>
A;Experimental source: CBS 4095
C;Function:
A;Description: oxidoreductase; catalyzes the oxidation of D-amino acids to their corresp
A;Note: reoxidation of the enzyme by molecular oxygen is accompanied by the release of h
C;Keywords: FAD; oxidoreductase

Query Match 43.8%; Score 21; DB 2; Length 9;
Best Local Similarity 80.0%; Pred. No. 2.8e+05;
Matches 4; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 5 GLRPG 9
| |||
Db 3 GHRPG 7

RESULT 2
PT0280
Ig heavy chain CRD3 region (clone 4-91B) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0280
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0280
A;Molecule type: DNA
A;Residues: 1-6 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

Query Match 41.7%; Score 20; DB 2; Length 6;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GSGS 4
||||
Db 1 GSGS 4

```
RESULT 3
PT0725
T-cell receptor beta chain V-D-J region (140-2I) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0725
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0725
A;Status: translation not shown
A;Molecule type: DNA
A;Residues: 1-8 <FEE>
A;Experimental source: newborn thymus, strain BALB/c
C;Keywords: T-cell receptor

  Query Match             41.7%;  Score 20;  DB 2;  Length 8;
  Best Local Similarity   80.0%;  Pred. No. 2.8e+05;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 SGSGL 6
              || ||
Db          2 SGDGL 6


RESULT 4
C53284
T-cell receptor beta 2 chain D region, Dbeta2 - rabbit
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 02-May-1994 #sequence_revision 18-Nov-1994 #text_change 05-Nov-1999
C;Accession: C53284
R;Harindranath, N.; Alexander, C.B.; Mage, R.G.
Mol. Immunol. 28, 881-888, 1991
A;Title: Evolutionarily conserved organization and sequences of germline diversity and j
A;Reference number: A53284; MUID:91342695; PMID:1678859
A;Accession: C53284
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-5 <HAR>
A;Cross-references: GB:S60737; NID:g233916; PIDN:AAB19519.1; PID:g233919
A;Note: sequence extracted from NCBI backbone (NCBIN:60737, NCBIP:60740)
C;Keywords: T-cell receptor

  Query Match             39.6%;  Score 19;  DB 2;  Length 5;
  Best Local Similarity   60.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |:| |
Db          1 GTGGG 5


RESULT 5
PT0689
T-cell receptor beta chain V-D-J region (140-1AF) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0689
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0689
A;Status: translation not shown
A;Molecule type: DNA
A;Residues: 1-7 <FEE>
A;Experimental source: day 18 fetal thymus, strain BALB/c
C;Keywords: T-cell receptor

  Query Match             39.6%;  Score 19;  DB 2;  Length 7;
  Best Local Similarity   60.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              | |:|
Db          3 GDGTG 7


RESULT 6
PT0543
T-cell receptor beta chain V-D-J region (126-1BE) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0543
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0543
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-7 <FEE>
A;Experimental source: day 18 fetal thymus, strain BALB/c
C;Keywords: T-cell receptor

  Query Match             37.5%;  Score 18;  DB 2;  Length 7;
  Best Local Similarity   60.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              | | |
Db          3 GDGQG 7


RESULT 7
PT0581
T-cell receptor beta chain V-D-J region (159-1A) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0581
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0581
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-7 <FEE>
A;Experimental source: day 19 fetal thymus, strain BALB/c
C;Keywords: T-cell receptor

  Query Match             37.5%;  Score 18;  DB 2;  Length 7;
  Best Local Similarity   66.7%;  Pred. No. 2.8e+05;
  Matches    4;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          4 SGLRPG 9
              | || |
Db          2 SSLRQG 7


RESULT 8
A58718
carnocin UI49 - Carnobacterium sp. (fragment)
C;Species: Carnobacterium sp.
C;Date: 23-Jan-1998 #sequence_revision 30-Jan-1998 #text_change 30-Jan-1998
C;Accession: A58718
R;Stoffels, G.; Nissen-Meyer, J.; Gudmundsdottir, A.; Sletten, K.; Holo, H.; Nes, I.F.
Appl. Environ. Microbiol. 58, 1417-1422, 1992
A;Title: Purification and characterization of a new bacteriocin isolated from a Carnobac
A;Reference number: A58718; MUID:92321768; PMID:1622206
A;Accession: A58718
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-7 <STO>
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C;Keywords: antibiotic; lanthionine

  Query Match             37.5%;  Score 18;  DB 2;  Length 7;
  Best Local Similarity   50.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    2;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          3 GSGLRP 8
              || ::|
Db          1 GSEIQP 6


RESULT 9
PT0268
Ig heavy chain CRD3 region (clone 3-94B) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0268
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0268
A;Molecule type: DNA
A;Residues: 1-9 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

  Query Match             37.5%;  Score 18;  DB 2;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          7 RPG 9
              |||
Db          2 RPG 4


RESULT 10
PT0572
T-cell receptor beta chain V-D-J region (141-1CO) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0572
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0572
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-5 <FEE>
A;Experimental source: day 19 fetal thymus, strain BALB/c
C;Keywords: T-cell receptor

  Query Match             35.4%;  Score 17;  DB 2;  Length 5;
  Best Local Similarity   75.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          4 SGLR 7
              ||:|
Db          2 SGIR 5


RESULT 11
PT0605
T-cell receptor beta chain V-D-J region (120-1L) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0605
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0605
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-6 <FEE>
A;Experimental source: newborn thymus, strain BALB/c
C;Keywords: T-cell receptor

  Query Match             35.4%;  Score 17;  DB 2;  Length 6;
  Best Local Similarity   75.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 SGSG 5
              ||:|
Db          2 SGAG 5


RESULT 12
PT0668
T-cell receptor beta chain V-D-J region (121-3BB) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0668
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0668
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-6 <FEE>
A;Experimental source: day 4 postnatal thymus, strain BALB/c
C;Keywords: T-cell receptor

  Query Match             35.4%;  Score 17;  DB 2;  Length 6;
  Best Local Similarity   75.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 SGSG 5
              ||:|
Db          3 SGTG 6


RESULT 13
PT0723
T-cell receptor beta chain V-D-J region (135-1AF) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0723
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0723
A;Status: translation not shown
A;Molecule type: DNA
A;Residues: 1-6 <FEE>
A;Experimental source: newborn thymus, strain BALB/c
C;Keywords: T-cell receptor

  Query Match             35.4%;  Score 17;  DB 2;  Length 6;
  Best Local Similarity   75.0%;  Pred. No. 2.8e+05;
  Matches    3;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 SGSG 5
              ||:|
Db          2 SGTG 5


RESULT 14
PT0719
T-cell receptor beta chain V-D-J region (140-2F) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0719; PT0638
```

R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0719
A;Status: translation not shown
A;Molecule type: DNA
A;Residues: 1-7 <FEE>
A;Experimental source: newborn thymus, strain BALB/c (clone 140-2F)
A;Accession: PT0638
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-7 <FE2>
A;Experimental source: newborn thymus, strain BALB/c (clone 111-1N)
C;Keywords: T-cell receptor

  Query Match 35.4%; Score 17; DB 2; Length 7;
  Best Local Similarity 75.0%; Pred. No. 2.8e+05;
  Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy          2 SGSG 5
              ||:|
Db          3 SGTG 6
```

RESULT 15
PT0279
Ig heavy chain CRD3 region (clone 4-91A) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0279
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0279
A;Molecule type: DNA
A;Residues: 1-8 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

  Query Match 35.4%; Score 17; DB 2; Length 8;
  Best Local Similarity 60.0%; Pred. No. 2.8e+05;
  Matches 3; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy          1 GSGSG 5
              | | |
Db          3 GDGRG 7
```

Search completed: November 17, 2003, 18:31:58
Job time : 15 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:24:14 ; Search time 10 Seconds
(without alignments)
42.324 Million cell updates/sec

Title: US-09-462-089-4
Perfect score: 48
Sequence: 1 GSGSGLRPG 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 127863 seqs, 47026705 residues

Total number of hits satisfying chosen parameters: 251

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_41:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	19.5	40.6	8	1	VGLG_HSV2B	P81780 herpes simp
2	19	39.6	9	1	FAR9_ASCSU	P43172 ascaris suu
3	18	37.5	7	1	LANC_CARUI	P36960 carnobacter
4	17	35.4	9	1	UPA6_HUMAN	P30092 homo sapien
5	16	33.3	8	1	LCK5_LEUMA	P19987 leucophaea
6	16	33.3	9	1	DSIP_RABIT	P01158 oryctolagus
7	13	27.1	8	1	AKH_TABAT	P14595 tabanus atr
8	13	27.1	8	1	LCK2_LEUMA	P21141 leucophaea
9	13	27.1	8	1	RPCH_PANBO	P08939 pandalus bo
10	13	27.1	8	1	UF06_MOUSE	P38644 mus musculu
11	13	27.1	8	1	UPAA_HUMAN	P30096 homo sapien
12	13	27.1	8	1	WP1_PERAT	P83195 perkinsus a
13	13	27.1	9	1	FAR5_CALVO	P41860 calliphora
14	13	27.1	9	1	KNL3_BOMVA	P83058 bombina var
15	13	27.1	9	1	SAMP_MUSCA	P19095 mustelus ca
16	13	27.1	9	1	TRP4_LEUMA	P81736 leucophaea
17	12	25.0	8	1	ALL3_CYDPO	P82154 cydia pomon
18	12	25.0	8	1	ALL4_CALVO	P41840 calliphora
19	12	25.0	8	1	ALL4_CYDPO	P82155 cydia pomon
20	12	25.0	8	1	PPK3_PERAM	P82618 periplaneta
21	12	25.0	9	1	BS43_SERPL	P83375 serratia pl
22	12	25.0	9	1	NEUU_CAVPO	P34966 cavia porce
23	12	25.0	9	1	TKC1_CALVO	P41517 calliphora
24	12	25.0	9	1	TKL1_LOCMI	P16223 locusta mig
25	11	22.9	8	1	ALL5_CYDPO	P82156 cydia pomon
26	11	22.9	8	1	COW2_CONPU	P58785 conus purpu
27	11	22.9	8	1	FAR1_PENMO	P83316 penaeus mon
28	11	22.9	8	1	FAR8_CALVO	P41863 calliphora
29	11	22.9	9	1	FAR6_MACRS	P83279 macrobrachi
30	11	22.9	9	1	FIBB_PAPAN	P19344 papio anubi
31	11	22.9	9	1	FIBB_PAPHA	P19343 papio hamad
32	11	22.9	9	1	FIBB_THEGE	P19342 theropithec
33	11	22.9	9	1	PGLR_DIAAB	P81179 diaprepes a
34	11	22.9	9	1	PPK1_PERAM	P82691 periplaneta
35	11	22.9	9	1	RE42_LITRU	P82075 litoria rub
36	11	22.9	9	1	XYLA_STRSQ	P19149 streptomyce
37	10	20.8	4	1	EOSI_HUMAN	P02731 homo sapien
38	10	20.8	4	1	OCP1_OCTMI	P58648 octopus min
39	10	20.8	4	1	OCP3_OCTMI	P58649 octopus min
40	10	20.8	5	1	AL14_CARMA	P81817 carcinus ma
41	10	20.8	5	1	UXA4_CHLTR	P38005 chlamydia t
42	10	20.8	6	1	CIP1_MYTED	P13736 mytilus edu
43	10	20.8	7	1	ALL2_CARMA	P81805 carcinus ma
44	10	20.8	7	1	ALL3_CARMA	P81806 carcinus ma
45	10	20.8	7	1	ALL4_CARMA	P81807 carcinus ma

ALIGNMENTS

RESULT 1
VGLG_HSV2B
ID VGLG_HSV2B STANDARD; PRT; 8 AA.
AC P81780;
DT 15-JUL-1999 (Rel. 38, Created)
DT 15-JUL-1999 (Rel. 38, Last sequence update)
DT 15-JUL-1999 (Rel. 38, Last annotation update)
DE Glycoprotein G (Fragment).
OS Herpes simplex virus (type 2 / strain B4327UR).
OC Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
OC Alphaherpesvirinae; Simplexvirus.
OX NCBI_TaxID=103921;
RN [1]
RP SEQUENCE.
RA Liljeqvist J.-A., Svennerholm B., Bergstrom T.;
RL Submitted (APR-1999) to the SWISS-PROT data bank.
CC -!- MISCELLANEOUS: THERE ARE SEVEN EXTERNAL GLYCOPROTEINS IN HSV1 AND
CC 2: GH, GB, GC, GG, GD, GI, AND GE.
CC -!- MISCELLANEOUS: GLYCOPROTEIN G IS MUCH LARGER IN HSV-2 THAN IN
CC HSV-1.
KW Glycoprotein.
FT NON_TER 8 8
SQ SEQUENCE 8 AA; 683 MW; 7B47686772C865B8 CRC64;

Query Match 40.6%; Score 19.5; DB 1; Length 8;
Best Local Similarity 71.4%; Pred. No. 1.3e+05;
Matches 5; Conservative 1; Mismatches 0; Indels 1; Gaps 1;

```
Qy          3 GSGLRPG 9
              |||: ||
Db          1 GSGV-PG 6
```

RESULT 2
FAR9_ASCSU
ID FAR9_ASCSU STANDARD; PRT; 9 AA.
AC P43172;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-FEB-1996 (Rel. 33, Last annotation update)
DE FMRFamide-like neuropeptide AF9.
OS Ascaris suum (Pig roundworm) (Ascaris lumbricoides).
OC Eukaryota; Metazoa; Nematoda; Chromadorea; Ascaridida; Ascaridoidea;
OC Ascarididae; Ascaris.
OX NCBI_TaxID=6253;
RN [1]
RP SEQUENCE.
RX MEDLINE=95380362; PubMed=7651904;
RA Cowden C., Stretton A.O.W.;
RT "Eight novel FMRFamide-like neuropeptides isolated from the nematode
RT Ascaris suum.";
RL Peptides 16:491-500(1995).
CC -!- SIMILARITY: BELONGS TO THE FARP (FMRFAMIDE RELATED PEPTIDE)
CC FAMILY.
KW Neuropeptide; Amidation.
FT MOD_RES 9 9 AMIDATION.

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SQ   SEQUENCE   9 AA;  1012 MW;  524F073774176877 CRC64;

  Query Match             39.6%;  Score 19;  DB 1;  Length 9;
  Best Local Similarity   66.7%;  Pred. No. 1.3e+05;
  Matches    4;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          3 GSGLRP 8
              | | ||
Db          1 GLGPRP 6


RESULT 3
LANC_CARUI
ID   LANC_CARUI     STANDARD;      PRT;     7 AA.
AC   P36960;
DT   01-JUN-1994 (Rel. 29, Created)
DT   01-JUN-1994 (Rel. 29, Last sequence update)
DT   16-OCT-2001 (Rel. 40, Last annotation update)
DE   Lantibiotic carnocin UI49 (Fragment).
OS   Carnobacterium sp. (strain UI49).
OC   Bacteria; Firmicutes; Lactobacillales; Carnobacteriaceae;
OC   Carnobacterium.
OX   NCBI_TaxID=35782;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=92321768; PubMed=1622206;
RA   Stoffels G., Nissen-Meyer J., Gudmundsdottir A., Sletten K., Holo H.,
RA   Nes I.F.;
RT   "Purification and characterization of a new bacteriocin isolated from
RT   a Carnobacterium sp.";
RL   Appl. Environ. Microbiol. 58:1417-1422(1992).
CC   -!- FUNCTION: LANTHIONINE-CONTAINING PEPTIDE ANTIBIOTIC (LANTIBIOTIC).
CC       ACTIVE ON GRAM-POSITIVE BACTERIA.
KW   Antibiotic; Bacteriocin; Lantibiotic.
FT   NON_TER       7       7
SQ   SEQUENCE   7 AA;  786 MW;  741776D05B05B810 CRC64;

  Query Match             37.5%;  Score 18;  DB 1;  Length 7;
  Best Local Similarity   50.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    2;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          3 GSGLRP 8
              || ::|
Db          1 GSEIQP 6


RESULT 4
UPA6_HUMAN
ID   UPA6_HUMAN     STANDARD;      PRT;     9 AA.
AC   P30092;
DT   01-APR-1993 (Rel. 25, Created)
DT   01-APR-1993 (Rel. 25, Last sequence update)
DT   16-OCT-2001 (Rel. 40, Last annotation update)
DE   Unknown protein from 2D-page of plasma (Spot 14) (Fragment).
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Plasma;
RX   MEDLINE=93092937; PubMed=1459097;
RA   Hughes G.J., Frutiger S., Paquet N., Ravier F., Pasquali C.,
RA   Sanchez J.-C., James R., Tissot J.-D., Bjellqvist B.,
RA   Hochstrasser D.F.;
RT   "Plasma protein map: an update by microsequencing.";
RL   Electrophoresis 13:707-714(1992).
CC   -!- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN
CC       PROTEIN IS: 5, ITS MW IS: 48 kDa.
DR   SWISS-2DPAGE; P30092; HUMAN.
FT   NON_TER       1       1
FT   NON_TER       9       9
SQ   SEQUENCE   9 AA;  935 MW;  5282F2CAA8676447 CRC64;

  Query Match             35.4%;  Score 17;  DB 1;  Length 9;
  Best Local Similarity   75.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          6 LRPG 9
              | ||
Db          2 LNPG 5


RESULT 5
LCK5_LEUMA
ID   LCK5_LEUMA     STANDARD;      PRT;     8 AA.
AC   P19987;
DT   01-FEB-1991 (Rel. 17, Created)
DT   01-FEB-1991 (Rel. 17, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Leucokinin V (L-V).
OS   Leucophaea maderae (Madeira cockroach).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
OC   Blaberidae; Leucophaea.
OX   NCBI_TaxID=6988;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Head;
RX   MEDLINE=87052651; PubMed=2877794;
RA   Holman G.M., Cook B.J., Nachman R.J.;
RT   "Isolation, primary structure, and synthesis of leucokinins V and VI:
RT   myotropic peptides of Leucophaea maderae.";
RL   Comp. Biochem. Physiol. 88C:27-30(1987).
CC   -!- FUNCTION: THIS CEPHALOMYOTROPIC PEPTIDE STIMULATES CONTRACTILE
CC       ACTIVITY OF COCKROACH PROTODEUM (HINDGUT).
CC   -!- SIMILARITY: TO THE OTHER LEUCOKININS.
DR   PIR; JS0315; JS0315.
KW   Neuropeptide; Amidation.
FT   MOD_RES       8       8       AMIDATION.
SQ   SEQUENCE   8 AA;  784 MW;  736365A5B9C865B8 CRC64;

  Query Match             33.3%;  Score 16;  DB 1;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSG 3
              |||
Db          1 GSG 3


RESULT 6
DSIP_RABIT
ID   DSIP_RABIT     STANDARD;      PRT;     9 AA.
AC   P01158;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   16-OCT-2001 (Rel. 40, Last annotation update)
DE   Delta sleep-inducing peptide (DSIP).
OS   Oryctolagus cuniculus (Rabbit).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX   NCBI_TaxID=9986;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=77185324; PubMed=862769;
RA   Monnier M., Dudler L., Gachter R., Maier P.F., Tobler H.J.,
RA   Schoenenberger G.A.;
RT   "The delta sleep inducing peptide (DSIP). Comparative properties of
RT   the original and synthetic nonapeptide.";
RL   Experientia 33:548-552(1977).
RN   [2]
RP   SEQUENCE, AND SYNTHESIS.
RX   MEDLINE=79054421; PubMed=568769;
RA   Schoenenberger G.A., Maier P.F., Tobler H.J., Wilson K., Monnier M.;
RT   "The delta EEG (sleep)-inducing peptide (DSIP). XI. Amino-acid
```

```
RT   analysis, sequence, synthesis and activity of the nonapeptide.";
RL   Pflugers Arch. 376:119-129(1978).
RN   [3]
RP   REVIEW.
RX   MEDLINE=87175129; PubMed=3550726;
RA   Graf M.V., Kastin A.J.;
RT   "Delta-sleep-inducing peptide (DSIP): an update.";
RL   Peptides 7:1165-1187(1986).
CC   -!- FUNCTION: WHEN INFUSED INTO THE MESODIENCEPHALIC VENTRICLE OF
CC       RECIPIENT RABBITS INDUCES SPINDLE AND DELTA EEG ACTIVITY AND
CC       REDUCED MOTOR ACTIVITIES.
CC   -!- MISCELLANEOUS: THIS PEPTIDE WAS OBTAINED FROM DIALYSATES OF
CC       OCCIPITAL VENOUS SINUS BLOOD FROM RABBITS KEPT ASLEEP BY ELECTRIC
CC       STIMULATION OF THE THALAMUS.
CC   -!- DATABASE: NAME=Protein Spotlight;
CC       NOTE=Issue 8 of March 2001;
CC       WWW="http://www.expasy.org/spotlight/articles/sptlt008.html".
DR   PIR; A01422; QDRB.
SQ   SEQUENCE   9 AA;  849 MW;  DDD365BDDAA8787D CRC64;

  Query Match             33.3%;  Score 16;  DB 1;  Length 9;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+05;
  Matches    3;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |  ||
Db          4 GDASG 8


RESULT 7
AKH_TABAT
ID   AKH_TABAT      STANDARD;      PRT;     8 AA.
AC   P14595;
DT   01-JAN-1990 (Rel. 13, Created)
DT   01-FEB-1994 (Rel. 28, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Adipokinetic hormone (AKH) (Dipteran corpora cardiaca factor I)
DE   (DCC I).
OS   Tabanus atratus (Horse fly).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Diptera; Brachycera; Tabanomorpha; Tabanidae;
OC   Tabanus.
OX   NCBI_TaxID=7207;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Corpora cardiaca;
RX   MEDLINE=90046758; PubMed=2813385;
RA   Jaffe H., Raina A.K., Riley C.T., Fraser B.A., Nachman R.J.,
RA   Vogel V.W., Zhang Y.-S., Hayes D.K.;
RT   "Primary structure of two neuropeptide hormones with adipokinetic and
RT   hypotrehalosemic activity isolated from the corpora cardiaca of horse
RT   flies (Diptera).";
RL   Proc. Natl. Acad. Sci. U.S.A. 86:8161-8164(1989).
CC   -!- FUNCTION: THIS HORMONE, RELEASED FROM CELLS IN THE CORPORA
CC       CARDIACA AFTER THE BEGINNING OF FLIGHT, CAUSES RELEASE OF
CC       DIGLYCERIDES FROM THE FAT BODY AND THEN STIMULATES THE FLIGHT
CC       MUSCLES TO USE THESE DIGLYCERIDES AS AN ENERGY SOURCE.
CC   -!- SIMILARITY: BELONGS TO THE AKH / HRTH / RPCH FAMILY.
DR   PIR; A33995; A33995.
DR   InterPro; IPR002047; AKH.
DR   PROSITE; PS00256; AKH; 1.
KW   Neuropeptide; Amidation; Flight; Pyrrolidone carboxylic acid.
FT   MOD_RES       1       1       PYRROLIDONE CARBOXYLIC ACID.
FT   MOD_RES       8       8       AMIDATION.
SQ   SEQUENCE   8 AA;  949 MW;  86786771A9D1A736 CRC64;

  Query Match             27.1%;  Score 13;  DB 1;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 PG 9
              ||
Db          6 PG 7


RESULT 8
LCK2_LEUMA
ID   LCK2_LEUMA     STANDARD;      PRT;     8 AA.
AC   P21141;
DT   01-MAY-1991 (Rel. 18, Created)
DT   01-MAY-1991 (Rel. 18, Last sequence update)
DT   01-MAY-1991 (Rel. 18, Last annotation update)
DE   Leucokinin II (L-II).
OS   Leucophaea maderae (Madeira cockroach).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
OC   Blaberidae; Leucophaea.
OX   NCBI_TaxID=6988;
RN   [1]
RP   SEQUENCE, AND SYNTHESIS.
RC   TISSUE=Head;
RA   Holman G.M., Cook B.J., Nachman R.J.;
RT   "Isolation, primary structure and synthesis of two neuropeptides
RT   from Leucophaea maderae: members of a new family of
RT   Cephalomyotropins.";
RL   Comp. Biochem. Physiol. 84C:205-211(1986).
CC   -!- FUNCTION: THIS CEPHALOMYOTROPIC PEPTIDE STIMULATES CONTRACTILE
CC       ACTIVITY OF COCKROACH PROTODEUM (HINDGUT).
CC   -!- SIMILARITY: TO THE OTHER LEUCOKININS.
KW   Neuropeptide; Amidation.
FT   MOD_RES       8       8       AMIDATION.
SQ   SEQUENCE   8 AA;  852 MW;  DC6365A5B9C8676A CRC64;

  Query Match             27.1%;  Score 13;  DB 1;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 PG 9
              ||
Db          2 PG 3


RESULT 9
RPCH_PANBO
ID   RPCH_PANBO     STANDARD;      PRT;     8 AA.
AC   P08939;
DT   01-NOV-1988 (Rel. 09, Created)
DT   01-FEB-1994 (Rel. 28, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Red pigment concentrating hormone (RPCH).
OS   Pandalus borealis (Northern red shrimp).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Caridea; Pandaloidea;
OC   Pandalidae; Pandalus.
OX   NCBI_TaxID=6703;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=75054965; PubMed=4433569;
RA   Fernlund P.;
RT   "Structure of the red-pigment-concentrating hormone of the shrimp,
RT   Pandalus borealis.";
RL   Biochim. Biophys. Acta 371:304-311(1974).
CC   -!- FUNCTION: THIS HORMONE ADAPTS THE ANIMAL TO LIGHT BACKGROUNDS BY
CC       STIMULATING CONCENTRATION OF THE PIGMENT OF ITS RED BODY-
CC       CHROMATOPHORES.
CC   -!- SIMILARITY: BELONGS TO THE AKH / HRTH / RPCH FAMILY.
DR   PIR; A61348; A61348.
DR   InterPro; IPR002047; AKH.
DR   PROSITE; PS00256; AKH; 1.
KW   Pigment; Hormone; Amidation; Pyrrolidone carboxylic acid.
FT   MOD_RES       1       1       PYRROLIDONE CARBOXYLIC ACID.
FT   MOD_RES       8       8       AMIDATION.
SQ   SEQUENCE   8 AA;  948 MW;  86786775B9C44736 CRC64;

  Query Match             27.1%;  Score 13;  DB 1;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+05;
```

```
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 PG 9
              ||
Db          6 PG 7


RESULT 10
UF06_MOUSE
ID   UF06_MOUSE     STANDARD;      PRT;     8 AA.
AC   P38644;
DT   01-OCT-1994 (Rel. 30, Created)
DT   01-OCT-1994 (Rel. 30, Last sequence update)
DT   01-FEB-1995 (Rel. 31, Last annotation update)
DE   Unknown protein from 2D-page of fibroblasts (P50) (Fragment).
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Fibroblast;
RX   MEDLINE=95009907; PubMed=7523108;
RA   Merrick B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;
RT   "Separation and sequencing of familiar and novel murine proteins
RT   using preparative two-dimensional gel electrophoresis.";
RL   Electrophoresis 15:735-745(1994).
CC   -!- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN
CC       PROTEIN IS: 5.2, ITS MW IS: 50 kDa.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  817 MW;  A35DD878676B05B1 CRC64;

  Query Match             27.1%;  Score 13;  DB 1;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 PG 9
              ||
Db          4 PG 5


RESULT 11
UPAA_HUMAN
ID   UPAA_HUMAN     STANDARD;      PRT;     8 AA.
AC   P30096;
DT   01-APR-1993 (Rel. 25, Created)
DT   01-APR-1993 (Rel. 25, Last sequence update)
DT   16-OCT-2001 (Rel. 40, Last annotation update)
DE   Unknown protein from 2D-page of plasma (Spot 36) (Fragment).
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Plasma;
RX   MEDLINE=93092937; PubMed=1459097;
RA   Hughes G.J., Frutiger S., Paquet N., Ravier F., Pasquali C.,
RA   Sanchez J.-C., James R., Tissot J.-D., Bjellqvist B.,
RA   Hochstrasser D.F.;
RT   "Plasma protein map: an update by microsequencing.";
RL   Electrophoresis 13:707-714(1992).
CC   -!- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN
CC       PROTEIN IS: 7, ITS MW IS: 12 kDa.
DR   SWISS-2DPAGE; P30096; HUMAN.
FT   NON_TER       1      1
FT   VARIANT       5      5       F -> P.
FT                                /FTId=VAR_000004.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  909 MW;  86677B59D1A72042 CRC64;

  Query Match             27.1%;  Score 13;  DB 1;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 PG 9
              ||
Db          7 PG 8


RESULT 12
WP1_PERAT
ID   WP1_PERAT      STANDARD;      PRT;     8 AA.
AC   P83195;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Wall protein-1 (PWP-1) (Fragment).
OS   Perkinsus atlanticus.
OC   Eukaryota; Alveolata; Perkinsea; Perkinsida; Perkinsidae; Perkinsus.
OX   NCBI_TaxID=106964;
RN   [1]
RP   SEQUENCE, FUNCTION, SUBCELLULAR LOCATION, AND DEVELOPMENTAL STAGE.
RX   MEDLINE=22044350; PubMed=12049410;
RA   Montes J.F., Durfort M., Llado A., Garcia-Valero J.;
RT   "Characterization and immunolocalization of a main proteinaceous
RT   component of the cell wall of the protozoan parasite Perkinsus
RT   atlanticus.";
RL   Parasitology 124:477-484(2002).
CC   -!- FUNCTION: Is a major protein component of the cell wall. May play
CC       a key role in the organization of the cell wall and in promoting
CC       the survival of this parasite.
CC   -!- SUBCELLULAR LOCATION: Cell wall. Disulfide-linked to other cell
CC       wall components.
CC   -!- DEVELOPMENTAL STAGE: Expressed throughout all walled developmental
CC       stages.
KW   Cell wall.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  765 MW;  F1787DD87B1AAB16 CRC64;

  Query Match             27.1%;  Score 13;  DB 1;  Length 8;
  Best Local Similarity   66.7%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSG 3
              |:|
Db          5 GAG 7


RESULT 13
FAR5_CALVO
ID   FAR5_CALVO     STANDARD;      PRT;     9 AA.
AC   P41860;
DT   01-NOV-1995 (Rel. 32, Created)
DT   01-NOV-1995 (Rel. 32, Last sequence update)
DT   01-NOV-1995 (Rel. 32, Last annotation update)
DE   CalliFMRFamide 5.
OS   Calliphora vomitoria (Blue blowfly).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC   Calliphoridae; Calliphora.
OX   NCBI_TaxID=27454;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Thoracic ganglion;
RX   MEDLINE=92196111; PubMed=1549595;
RA   Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA   Rehfeld J.F., Thorpe A.;
RT   "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
RT   neuropeptides (designated calliFMRFamides) from the blowfly
RT   Calliphora vomitoria.";
RL   Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
CC   -!- SIMILARITY: BELONGS TO THE FARP (FMRFAMIDE RELATED PEPTIDE)
CC       FAMILY.
DR   PIR; E41978; E41978.
KW   Neuropeptide; Amidation.
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FT   MOD_RES       9      9       AMIDATION.
SQ   SEQUENCE   9 AA;  1068 MW;  39D10699CAB6D867 CRC64;

  Query Match             27.1%;  Score 13;  DB 1;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 PG 9
              ||
Db          2 PG 3


RESULT 14
KNL3_BOMVA
ID   KNL3_BOMVA     STANDARD;      PRT;     9 AA.
AC   P83058;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   [Thr6]bradykinin.
OS   Bombina variegata (Yellow-bellied toad).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Archeobatrachia; Bombinatoridae; Bombina.
OX   NCBI_TaxID=8348;
RN   [1]
RP   SEQUENCE, SUBCELLULAR LOCATION, AND TISSUE SPECIFICITY.
RC   TISSUE=Skin secretion;
RA   Chen T.B., Orr D.F., Bjourson A.J., McClean S., Rao P.F., Shaw C.;
RT   "Cloning and post-translational processing of frog skin kininogens.";
RL   Submitted (JUL-2001) to the SWISS-PROT data bank.
CC   -!- FUNCTION: [Thr6]bradykinin produces in vitro relaxation of rat
CC       arterial smooth muscle and constriction of intestinal smooth
CC       muscle.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Skin.
CC   -!- SIMILARITY: BELONGS TO THE BRADYKININ FAMILY.
KW   Amphibian defense peptide; Vasodilator; Bradykinin.
SQ   SEQUENCE   9 AA;  1074 MW;  3393D771A9C86777 CRC64;

  Query Match             27.1%;  Score 13;  DB 1;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 PG 9
              ||
Db          3 PG 4


RESULT 15
SAMP_MUSCA
ID   SAMP_MUSCA     STANDARD;      PRT;     9 AA.
AC   P19095;
DT   01-NOV-1990 (Rel. 16, Created)
DT   01-NOV-1990 (Rel. 16, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Serum amyloid P-component (SAP) (Fragment).
OS   Mustelus canis (Smooth dogfish).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;
OC   Elasmobranchii; Galeomorphii; Galeoidea; Carcharhiniformes; Triakidae;
OC   Mustelus.
OX   NCBI_TaxID=7812;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=83160932; PubMed=6403520;
RA   Robey F.A., Tanaka T., Liu T.-Y.;
RT   "Isolation and characterization of two major serum proteins from the
RT   dogfish, Mustelus canis, C-reactive protein and amyloid P
RT   component.";
RL   J. Biol. Chem. 258:3889-3894(1983).
CC   -!- SUBUNIT: HOMOPENTAMER. PENTAXIN (OR PENTRAXIN) HAVE A DISCOID
CC       ARRANGEMENT OF 5 NONCOVALENTLY BOUND SUBUNITS.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- DISEASE: SAP IS A PRECURSOR OF AMYLOID COMPONENT P WHICH IS FOUND
CC       IN BASEMENT MEMBRANE AND ASSOCIATED WITH AMYLOID DEPOSITS.
CC   -!- SIMILARITY: BELONGS TO THE PENTAXIN FAMILY.
DR   PIR; B20569; B20569.
DR   InterPro; IPR001759; Pentaxin.
DR   PROSITE; PS00289; PENTAXIN; PARTIAL.
KW   Lectin; Amyloid; Glycoprotein; Plasma; Pentaxin.
FT   DOMAIN        1      >9       PENTAXIN.
FT   NON_TER       9      9
SQ   SEQUENCE   9 AA;  965 MW;  D05B5735B3386769 CRC64;

  Query Match             27.1%;  Score 13;  DB 1;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 PG 9
              ||
Db          3 PG 4


Search completed: November 17, 2003, 18:30:11
Job time : 11 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:27:09 ; Search time 27.5 Seconds
(without alignments)
84.454 Million cell updates/sec

Title: US-09-462-089-4
Perfect score: 48
Sequence: 1 GSGSGLRPG 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 830525 seqs, 258052604 residues

Total number of hits satisfying chosen parameters: 775

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SPTREMBL_23:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	18	37.5	8	13	P82079	P82079 limnodynast
2	18	37.5	9	12	Q69473	Q69473 human herpe
3	16	33.3	8	13	Q9PS69	Q9ps69 gallus gall
4	16	33.3	9	6	Q9TRW2	Q9trw2 oryctolagus
5	16	33.3	9	11	O08979	O08979 mus musculu
6	15	31.2	9	5	Q9TWV0	Q9twv0 anthopleura
7	15	31.2	9	13	Q8AUM7	Q8aum7 carassius a
8	14	29.2	8	3	Q9HDS4	Q9hds4 aspergillus
9	14	29.2	9	11	O35953	O35953 mus musculu
10	13	27.1	8	2	Q56140	Q56140 streptococc
11	13	27.1	8	4	Q15901	Q15901 homo sapien
12	13	27.1	8	5	O02032	O02032 lytechinus
13	13	27.1	8	6	Q9TT78	Q9tt78 canis famil
14	13	27.1	8	6	Q9XSY1	Q9xsy1 canis famil
15	13	27.1	8	7	Q95213	Q95213 oryctolagus
16	13	27.1	8	10	Q8L802	Q8l802 zea mays (m
17	13	27.1	8	13	Q98TU5	Q98tu5 xenopus lae
18	13	27.1	9	2	Q99193	Q99193 pseudomonas
19	13	27.1	9	13	Q9PRJ4	Q9prj4 lepisosteus
20	13	27.1	9	13	Q92009	Q92009 gallus gall
21	13	27.1	9	15	O12096	O12096 caprine art
22	13	27.1	9	15	O12100	O12100 caprine art
23	13	27.1	9	15	O12102	O12102 caprine art
24	13	27.1	9	15	O12098	O12098 caprine art
25	13	27.1	9	15	O12104	O12104 caprine art
26	13	27.1	9	16	Q935G1	Q935g1 salmonella
27	12	25.0	7	2	Q47505	Q47505 escherichia
28	12	25.0	7	8	O98866	O98866 spinacia ol
29	12	25.0	7	10	P93233	P93233 lycopersico
30	12	25.0	8	2	Q8GMM5	Q8gmm5 acinetobact
31	12	25.0	8	4	Q9UMC7	Q9umc7 homo sapien
32	12	25.0	8	5	P82685	P82685 periplaneta
33	12	25.0	8	6	Q9GMH3	Q9gmh3 lagenorhync
34	12	25.0	8	6	Q28866	Q28866 megaptera n
35	12	25.0	8	11	Q60615	Q60615 mus musculu
36	12	25.0	8	12	Q64971	Q64971 alfalfa mos
37	12	25.0	9	2	Q47410	Q47410 escherichia
38	12	25.0	9	4	Q15999	Q15999 homo sapien
39	12	25.0	9	4	Q9BQQ2	Q9bqq2 homo sapien
40	12	25.0	9	5	Q9TWX7	Q9twx7 manduca sex
41	12	25.0	9	5	Q9TWD6	Q9twd6 leptinotars
42	12	25.0	9	6	Q9GJV2	Q9gjv2 lagenorhync
43	12	25.0	9	6	Q9GJV3	Q9gjv3 lagenorhync
44	12	25.0	9	6	Q9GJV1	Q9gjv1 lagenorhync
45	12	25.0	9	7	Q31415	Q31415 gallus gall

ALIGNMENTS

RESULT 1
P82079
ID P82079 PRELIMINARY; PRT; 8 AA.
AC P82079;
DT 01-MAY-2000 (TrEMBLrel. 13, Created)
DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT 01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DE DYNASTIN 1.
OS Limnodynastes interioris (Giant banjo frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Myobatrachidae;
OC Limnodynastinae; Limnodynastes.
OX NCBI_TaxID=30362;
RN [1]
RP SEQUENCE, AND MASS SPECTROMETRY.
RC TISSUE=TIBIAL GLAND;
RA Raftery M.J., Bradford A.M., Bowie J.H., Wallace J.C., Tyler M.J.;
RT "Peptides from Australian frogs. The structure of the dynastins from
RT the banjo frogs Limnodynastes interioras, Limnodynastes dumerilii and
RT Limnodynastes terraereginae.";
RL Aust. J. Chem. 46:833-842(1993).
CC -!- MASS SPECTROMETRY: MW=729; METHOD=FAB.
KW Amphibian skin.
SQ SEQUENCE 8 AA; 729 MW; 7C28772865B72728 CRC64;

Query Match 37.5%; Score 18; DB 13; Length 8;
Best Local Similarity 80.0%; Pred. No. 8.3e+05;
Matches 4; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 2 SGSGL 6
|| ||
Db 4 SGLGL 8

RESULT 2
Q69473
ID Q69473 PRELIMINARY; PRT; 9 AA.
AC Q69473;
DT 01-NOV-1996 (TrEMBLrel. 01, Created)

```
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DE   Immediate-early transactivator 110 (Fragment).
GN   ICP0.
OS   Human herpesvirus 1.
OC   Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
OC   Alphaherpesvirinae; Simplexvirus.
OX   NCBI_TaxID=10298;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=MP;
RX   PubMed=11725047;
RA   Chang Y., Jeang K., Lietman T., Hayward G.S.;
RT   "Structural Organization of the Spliced Immediate-Early Gene Complex
RT   that Encodes the Major Acidic Nuclear (IE1) and Transactivator (IE2)
RT   Proteins of African Green Monkey Cytomegalovirus.";
RL   J. Biomed. Sci. 2:105-130(1995).
DR   EMBL; U18080; AAA75442.1; -.
FT   NON_TER       1      1
FT   NON_TER       9      9
SQ   SEQUENCE   9 AA;  1029 MW;  797BB867740DDB04 CRC64;

  Query Match             37.5%;  Score 18;  DB 12;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          7 RPG 9
              |||
Db          5 RPG 7


RESULT 3
Q9PS69
ID   Q9PS69      PRELIMINARY;      PRT;     8 AA.
AC   Q9PS69;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   LOW density lipoprotein receptor-related protein (Fragment).
OS   Gallus gallus (Chicken).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC   Gallus.
OX   NCBI_TaxID=9031;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=92011685; PubMed=1918027;
RA   Stifani S., Barber D.L., Aebersold R., Steyrer E., Shen X., Nimpf J.,
RA   Schneider W.J.;
RT   "The laying hen expresses two different low density lipoprotein
RT   receptor-related proteins.";
RL   J. Biol. Chem. 266:19079-19087(1991).
FT   NON_TER       1      1
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  846 MW;  C007272DD865BAAA CRC64;

  Query Match             33.3%;  Score 16;  DB 13;  Length 8;
  Best Local Similarity   66.7%;  Pred. No. 8.3e+05;
  Matches    4;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 SGSGLR 7
              ||: ||
Db          3 SGALLR 8


RESULT 4
Q9TRW2
ID   Q9TRW2      PRELIMINARY;      PRT;     9 AA.
AC   Q9TRW2;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   CALDESMON=PHOSPHORYLATION site (Fragment).
OS   Oryctolagus cuniculus (Rabbit).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX   NCBI_TaxID=9986;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=91378498; PubMed=1898046;
RA   Ikebe M., Hornick T.;
RT   "Determination of the phosphorylation sites of smooth muscle caldesmon
RT   by protein kinase C.";
RL   Arch. Biochem. Biophys. 288:538-542(1991).
FT   NON_TER       1      1
FT   NON_TER       9      9
SQ   SEQUENCE   9 AA;  1018 MW;  8C901B10533735A5 CRC64;

  Query Match             33.3%;  Score 16;  DB 6;  Length 9;
  Best Local Similarity   60.0%;  Pred. No. 8.3e+05;
  Matches    3;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          3 GSGLR 7
              || |:
Db          1 GSSLK 5


RESULT 5
O08979
ID   O08979      PRELIMINARY;      PRT;     9 AA.
AC   O08979;
DT   01-JUL-1997 (TrEMBLrel. 04, Created)
DT   01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   AML1 protein (Fragment).
GN   AML1.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=NMRI; TISSUE=Tumor;
RX   MEDLINE=97332339; PubMed=9188573;
RA   Amtoft H.W., Sorensen A.B., Bareil C., Schmidt J., Luz A.,
RA   Pedersen F.S.;
RT   "Stability of AML1 (core) site enhancer mutations in T-lymphomas
RT   induced by attenuated SL3-3 murine leukemia virus mutants.";
RL   J. Virol. 71:5080-5087(1997).
DR   EMBL; Y11802; CAA72496.1; -.
FT   NON_TER       1      1
FT   NON_TER       9      9
SQ   SEQUENCE   9 AA;  981 MW;  293E01E865A776D8 CRC64;

  Query Match             33.3%;  Score 16;  DB 11;  Length 9;
  Best Local Similarity   57.1%;  Pred. No. 8.3e+05;
  Matches    4;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          1 GSGSGLR 7
              |  || |
Db          2 GQPSGHR 8


RESULT 6
Q9TWV0
ID   Q9TWV0      PRELIMINARY;      PRT;     9 AA.
AC   Q9TWV0;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DE   Antho-RPAMIDE=NEUROPEPTIDE.
OS   Anthopleura elegantissima (Sea anemone).
OC   Eukaryota; Metazoa; Cnidaria; Anthozoa; Zoantharia; Actiniaria;
OC   Nynantheae; Actiniidae; Anthopleura.
OX   NCBI_TaxID=6110;
RN   [1]
```

```
RP   SEQUENCE.
RX   MEDLINE=93126143; PubMed=1480510;
RA   Carstensen K., Rinehart K.L., McFarlane I.D., Grimmelikhuijzen C.J.;
RT   "Isolation of Leu-Pro-Pro-Gly-Pro-Leu-Pro-Arg-Pro-NH2 (Antho-RPamide),
RT   an N-terminally protected, biologically active neuropeptide from sea
RT   anemones.";
RL   Peptides 13:851-857(1992).
SQ   SEQUENCE   9 AA;  943 MW;  2908176737686777 CRC64;

  Query Match             31.2%;  Score 15;  DB 5;  Length 9;
  Best Local Similarity   75.0%;  Pred. No. 8.3e+05;
  Matches    3;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          6 LRPG 9
              | ||
Db          1 LPPG 4


RESULT 7
Q8AUM7
ID   Q8AUM7      PRELIMINARY;      PRT;     9 AA.
AC   Q8AUM7;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Cytochrome P450 aromatase (Fragment).
GN   CYP19A.
OS   Carassius auratus (Goldfish).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
OC   Cyprinidae; Carassius.
OX   NCBI_TaxID=7957;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Tchoudakova A.V., Kishida M., Wood E., Callard G.V.;
RT   "Promoter characteristics of two CYP19 genes differentially expressed
RT   in the brain and ovary of teleost fish.";
RL   J. Steroid Biochem. Mol. Biol. 0:0-0(2001).
DR   EMBL; AF324895; AAN32616.1; -.
DR   EMBL; AF324896; AAN32617.1; -.
FT   NON_TER       9      9
SQ   SEQUENCE   9 AA;  961 MW;  C49E76D7272B187D CRC64;

  Query Match             31.2%;  Score 15;  DB 13;  Length 9;
  Best Local Similarity   42.9%;  Pred. No. 8.3e+05;
  Matches    3;  Conservative    2;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          2 SGSGLRP 8
              :|  |:|
Db          2 AGELLQP 8


RESULT 8
Q9HDS4
ID   Q9HDS4      PRELIMINARY;      PRT;     8 AA.
AC   Q9HDS4;
DT   01-MAR-2001 (TrEMBLrel. 16, Created)
DT   01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT   01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
DE   TrpC polyprotein (Fragment).
GN   TRPC.
OS   Aspergillus flavus.
OC   Eukaryota; Fungi; Ascomycota; Pezizomycotina; Eurotiomycetes;
OC   Eurotiales; Trichocomaceae; mitosporic Trichocomaceae; Aspergillus.
OX   NCBI_TaxID=5059;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=A55;
RA   Geiser D.M., Dorner J.W., Horn B.W., Taylor J.W.;
RT   "The phylogenetics of mycotoxin and sclerotium production in
RT   Aspergillus flavus and Aspergillus oryzae.";
RL   Submitted (APR-2000) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF261861; AAG16135.1; -.
KW   Polyprotein.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  807 MW;  F3B2C72AB5B87DD6 CRC64;

  Query Match             29.2%;  Score 14;  DB 3;  Length 8;
  Best Local Similarity   60.0%;  Pred. No. 8.3e+05;
  Matches    3;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 SGSGL 6
              :|| |
Db          2 AGSDL 6


RESULT 9
O35953
ID   O35953      PRELIMINARY;      PRT;     9 AA.
AC   O35953;
DT   01-JAN-1998 (TrEMBLrel. 05, Created)
DT   01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Truncated voltage-gated sodium channel alpha subunit (Fragment).
GN   SCN8A.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=RIII;
RX   MEDLINE=97442476; PubMed=9295353;
RA   Plummer N.W., McBurney M.W., Meisler M.H.;
RT   "Alternative splicing of the sodium channel SCN8A predicts a truncated
RT   two-domain protein in fetal brain and non-neuronal cells.";
RL   J. Biol. Chem. 272:24008-24015(1997).
DR   EMBL; U97672; AAB80914.1; -.
DR   MGD; MGI:103169; Scn8a.
KW   Ionic channel.
FT   NON_TER       1      1
SQ   SEQUENCE   9 AA;  898 MW;  22D92865B735B737 CRC64;

  Query Match             29.2%;  Score 14;  DB 11;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          4 SGL 6
              |||
Db          6 SGL 8


RESULT 10
Q56140
ID   Q56140      PRELIMINARY;      PRT;     8 AA.
AC   Q56140;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   STP6 protein (Fragment).
GN   STP6.
OS   Streptococcus thermophilus.
OC   Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
OC   Streptococcus.
OX   NCBI_TaxID=1308;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=ST11;
RX   MEDLINE=95047254; PubMed=7958782;
RA   Constable A., Mollet B.;
RT   "Isolation and characterisation of promoter regions from Streptococcus
RT   thermophilus.";
RL   FEMS Microbiol. Lett. 122:85-90(1994).
DR   EMBL; X78210; CAA55045.1; -.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  846 MW;  ED086772D5B045B6 CRC64;
```

```
  Query Match             27.1%;  Score 13;  DB 2;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 PG 9
              ||
Db          6 PG 7


RESULT 11
Q15901
ID   Q15901      PRELIMINARY;      PRT;     8 AA.
AC   Q15901;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   (Clone XP7B11B) (Fragment).
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Placenta;
RA   Lee C.-C., Yazdani A., Wehnert M., Bailey J., Couch L., Xiong M.,
RA   Coolbaugh M.I., Chinault C.A., Baldini A., Lindsay E.A., Zhao Z.-Y.,
RA   Caskey C.T.H.;
RT   "Isolation of chromosome-specific genes by reciprocal probing of
RT   arrayed cDNAs and cosmid libraries.";
RL   Hum. Mol. Genet. 0:0-0(1995).
DR   EMBL; L32080; AAA73891.1; -.
FT   NON_TER       1      1
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  860 MW;  37D72878676729CB CRC64;

  Query Match             27.1%;  Score 13;  DB 4;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 PG 9
              ||
Db          4 PG 5


RESULT 12
O02032
ID   O02032      PRELIMINARY;      PRT;     8 AA.
AC   O02032;
DT   01-JUL-1997 (TrEMBLrel. 04, Created)
DT   01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
DT   01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
DE   Metallothionein (Fragment).
GN   LPMT2.
OS   Lytechinus pictus (Painted sea urchin).
OC   Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Echinozoa;
OC   Echinoidea; Euechinoidea; Echinacea; Temnopleuroida; Toxopneustidae;
OC   Lytechinus.
OX   NCBI_TaxID=7653;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=97264487; PubMed=9110313;
RA   Cserjesi P., Fang H., Brandhorst B.P.;
RT   "Metallothionein gene expression in embryos of the sea urchin
RT   Lytechinus pictus.";
RL   Mol. Reprod. Dev. 47:39-46(1997).
DR   EMBL; U83400; AAB58320.1; -.
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  823 MW;  EBD5A2C1F7686766 CRC64;

  Query Match             27.1%;  Score 13;  DB 5;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 PG 9
              ||
Db          2 PG 3


RESULT 13
Q9TT78
ID   Q9TT78      PRELIMINARY;      PRT;     8 AA.
AC   Q9TT78;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Thymidylate synthase (Fragment).
GN   TS.
OS   Canis familiaris (Dog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX   NCBI_TaxID=9615;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=21015404; PubMed=11130975;
RA   Brouillette J.A., Andrew J.R., Venta P.J.;
RT   "Estimate of nucleotide diversity in dogs with a pool-and-sequence
RT   method.";
RL   Mamm. Genome 11:1079-1086(2000).
DR   EMBL; AF202073; AAF20918.1; -.
FT   NON_TER       1      1
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  899 MW;  6731A1E059CAA867 CRC64;

  Query Match             27.1%;  Score 13;  DB 6;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 PG 9
              ||
Db          1 PG 2


RESULT 14
Q9XSY1
ID   Q9XSY1      PRELIMINARY;      PRT;     8 AA.
AC   Q9XSY1;
DT   01-NOV-1999 (TrEMBLrel. 12, Created)
DT   01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT   01-NOV-1999 (TrEMBLrel. 12, Last annotation update)
DE   Retinoblastoma protein (Fragment).
GN   RB1.
OS   Canis familiaris (Dog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX   NCBI_TaxID=9615;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=97049323; PubMed=8894053;
RA   Venta P.J., Brouillette J.A., Yuzbasiyan-Gurkan V., Brewer G.J.;
RT   "Gene-specific universal mammalian sequence-tagged sites: application
RT   to the canine genome.";
RL   Biochem. Genet. 34:321-341(1996).
RN   [2]
RP   SEQUENCE FROM N.A.
RA   Venta P.J., Cao Y., Alexander L., Yuzbasiyan-Gurkan V.;
RT   "Dinucleotide repeat polymorphism in the canine retinoblastoma (RB1)
RT   gene.";
RL   Submitted (JUN-1999) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF155737; AAD38807.1; -.
FT   NON_TER       1      1
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  895 MW;  1425BB18676721E3 CRC64;

  Query Match             27.1%;  Score 13;  DB 6;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
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  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 PG 9
              ||
Db          4 PG 5


RESULT 15
Q95213
ID   Q95213      PRELIMINARY;      PRT;     8 AA.
AC   Q95213;
DT   01-FEB-1997 (TrEMBLrel. 02, Created)
DT   01-FEB-1997 (TrEMBLrel. 02, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   Germline DH (Df) gene (Fragment).
GN   DF.
OS   Oryctolagus cuniculus (Rabbit).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX   NCBI_TaxID=9986;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=F-I/rgm;
RA   Mage R.G., Chen H.-T., Alexander C.B., Chen F.F.;
RT   "Rabbit DQ52 and DH Gene Rearrangements in Early B-cell Development.";
RL   Mol. Immunol. 0:0-0(1996).
DR   EMBL; U62585; AAB18735.1; -.
FT   NON_TER       1      1
FT   NON_TER       8      8
SQ   SEQUENCE   8 AA;  845 MW;  5CA861B5AB58677B CRC64;

  Query Match             27.1%;  Score 13;  DB 7;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 PG 9
              ||
Db          2 PG 3


Search completed: November 17, 2003, 18:31:20
Job time : 28.5 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:23:44 ; Search time 34 Seconds
(without alignments)
42.016 Million cell updates/sec

Title: US-09-462-089-4
Perfect score: 48
Sequence: 1 GSGSGLRPG 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 179625

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_19Jun03:*
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24: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2003.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	48	100.0	9	21	AAB15365	Modified human LHR
2	29	60.4	9	24	ABR01230	Human gene 284-enc
3	29	60.4	9	24	ABP99740	Human secreted pro
4	28	58.3	5	13	AAR28240	Alpha-substituted
5	28	58.3	5	13	AAR28241	Alpha-substituted
6	28	58.3	5	13	AAR28242	Alpha-substituted
7	28	58.3	5	15	AAR53131	Cholecystokinin an
8	28	58.3	5	15	AAR53132	Cholecystokinin an
9	28	58.3	5	15	AAR53133	Cholecystokinin an
10	28	58.3	7	22	AAB90982	Luteinising hormon
11	28	58.3	8	6	AAP50692	Sequence of gonado
12	28	58.3	8	13	AAR26733	Immunogenic LHRH(3
13	28	58.3	8	20	AAW94892	LHRH peptide fragm
14	28	58.3	8	21	AAB15364	Human LHRH peptide
15	28	58.3	9	7	AAP60174	Sequence of lutein
16	28	58.3	9	15	AAR57685	Peptide (185) inhi
17	28	58.3	9	16	AAR86849	Gonadotropin relea
18	28	58.3	9	20	AAW94891	LHRH peptide fragm
19	28	58.3	9	21	AAB15363	Human LHRH peptide
20	28	58.3	9	21	AAB08104	Amino acid sequenc
21	28	58.3	9	22	AAB90979	Luteinising hormon
22	28	58.3	9	22	AAB59836	GnRH peptide. Pet
23	27	56.2	9	15	AAR57721	Peptide (221) inhi
24	26	54.2	5	19	AAW56059	Mutant CD loop of
25	26	54.2	5	23	ABJ05341	Target fusion pept
26	26	54.2	5	24	AAO26595	Fusion protein rel
27	26	54.2	6	19	AAW56062	Mutant FG loop of
28	26	54.2	6	20	AAY15209	Optional sequence
29	26	54.2	6	22	AAU04632	Linker sequence #2
30	26	54.2	6	22	AAE04504	Linker peptide #3.
31	26	54.2	6	22	AAB75115	Linker peptide seq
32	26	54.2	6	23	ABP56401	Peptide linker #1.
33	26	54.2	6	23	AAE16123	Phosphopeptide #1,
34	26	54.2	8	17	AAW05710	Minimal motif #6.
35	26	54.2	8	19	AAW79115	Gly-ala polymer of
36	26	54.2	8	22	AAU04616	Linker sequence us
37	26	54.2	8	22	AAE04488	Linker peptide #1.
38	26	54.2	8	24	AAE30841	Gly-Ser tag peptid
39	26	54.2	9	15	AAR57682	Peptide (182) inhi
40	26	54.2	9	22	AAE08093	Modified humanised
41	26	54.2	9	22	AAU03378	TraR/GS/B1AD fusio
42	26	54.2	9	22	AAB75119	Linker peptide seq
43	26	54.2	9	23	ABJ04442	Stem cell (mesench
44	26	54.2	9	23	ABB08636	GFP peptide linker
45	26	54.2	9	23	ABB08750	GFP cloning interm

ALIGNMENTS

RESULT 1
AAB15365
ID AAB15365 standard; peptide; 9 AA.
XX
AC AAB15365;
XX
DT 17-JAN-2001 (first entry)
XX
DE Modified human LHRH peptide SEQ ID NO: 4.
XX
KW Human; LHRH; GnRH; luteinising hormone releasing hormone;
KW gonadotrophin releasing hormone; fertility control; cancer;
KW endometriosis; prostate enlargement.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200041720-A1.
XX
PD 20-JUL-2000.
XX
PF 24-DEC-1999; 99WO-AU01167.
XX
PR 08-JAN-1999; 99AU-0008073.
XX
PA (CSLC-) CSL LTD.
XX
PI Walker J;
XX
DR WPI; 2000-475954/41.
XX
PT Adjuvant composition for manufacturing an immunogenic composition that

PT can elicit an immune response in an animal, comprises an ionic
PT polysaccharide component and a saponin component that is an
PT immunostimulating complex -
XX
PS Disclosure; Page 51; 53pp; English.
XX
CC The present sequence is a peptide fragment of human luteinising hormone
CC releasing hormone (also known as LHRH, GnRH and gonadotrophin releasing
CC hormone), which has spacers inserted at the N-terminus. It was used to
CC demonstrate the novel adjuvant of the invention, which has lower
CC reactogenicity then previous compositions. Vaccination of humans and
CC animals against LHRH can be used as a method of fertility control, as
CC well as enabling the control and treatment of disorders of the
CC reproductive organs, such as testicular, breast, prostate and ovarian
CC cancers, prostate enlargement and endometriosis. The composition of the
CC invention contains an anionic macromolecule and a saponin component, the
CC latter of which is an immunostimulant, and it can also be used with other
CC immunogens including soluble protein antigens, peptide haptens conjugated
CC to a carrier protein and whole viruses.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 48; DB 21; Length 9;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GSGSGLRPG 9
|||||||||
Db 1 GSGSGLRPG 9

RESULT 2
ABR01230
ID ABR01230 standard; peptide; 9 AA.
XX
AC ABR01230;
XX
DT 12-MAY-2003 (first entry)
XX
DE Human gene 284-encoded secreted protein HRDER22, SEQ ID NO:711.
XX
KW Human; secreted protein; cancer; tumour; hyperproliferative disorder;
KW autoimmune disorder; inflammation; angiogenic diseases; AIDS;
KW acquired immunodeficiency syndrome; hepatitis; anaemia; wound healing;
KW drug screening; chromosome identification; chromosome mapping;
KW cytostatic; gene therapy; antiinflammatory; immunomodulator; anti-HIV;
KW antianaemic; vulnerary.
XX
OS Homo sapiens.
XX
PN WO200277013-A2.
XX
PD 03-OCT-2002.
XX
PF 26-MAR-2002; 2002WO-US09370.
XX
PR 27-MAR-2001; 2001US-278650P.
PR 12-SEP-2001; 2001US-0950082.
PR 12-SEP-2001; 2001US-0950083.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Ruben SM;
XX
DR WPI; 2003-040578/03.
DR N-PSDB; ABZ73564.
XX
PT New human secreted proteins and nucleic acids, useful for detecting or
PT treating cancer or other hyperproliferative disorders, autoimmune
PT disorders, inflammatory disorders, HIV disease, hepatitis or anemia -
XX
PS Claim 13; Page 1469; 2474pp; English.
XX
CC ABZ73281-ABZ73697 represent cDNAs corresponding to 391 human secreted
CC protein genes, and ABP00947-ABP01363 represent the proteins they encode.
CC ABZ73698-ABZ74687 represent human secreted protein genomic fragments. The
CC invention also encompasses antibodies specific for the secreted proteins,
CC the use of the secreted proteins in drug screening and recombinant
CC vectors and host cells comprising a nucleic acid of the invention. The
CC secreted proteins are thought to be involved in biological activities
CC associated with cellular signalling, cellular differentiation, cell
CC migration, prohormone activation and neurotransmitter activity. The
CC secreted proteins, nucleic acids encoding them, antibodies or antibody
CC fragments specific for the secreted proteins, and modulators of protein
CC activity are useful for diagnosing or treating cancers or other
CC hyperproliferative disorders. Additionally, the secreted proteins and
CC their nucleic acids may also be used in the treatment of autoimmune
CC disorders, inflammatory disorders, diseases involving angiogenesis, AIDS
CC (acquired immunodeficiency syndrome), hepatitis, anaemia, and to promote
CC wound healing. Nucleic acids of the invention may be used for chromosome
CC identification, chromosome mapping, in gene therapy, for identifying
CC individuals from minute biological samples, as hybridisation probes, and
CC as molecular weight markers. The present sequence represents a human
CC secreted protein of the invention.
XX
SQ Sequence 9 AA;

Query Match 60.4%; Score 29; DB 24; Length 9;
Best Local Similarity 62.5%; Pred. No. 9.3e+05;
Matches 5; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 2 SGSGLRPG 9
:|:|| ||
Db 1 AGAGLPPG 8

RESULT 3
ABP99740
ID ABP99740 standard; Protein; 9 AA.
XX
AC ABP99740;
XX
DT 26-MAR-2003 (first entry)
XX
DE Human secreted protein SEQ ID NO 684.
XX
KW Human; secreted protein; nootropic; neuroprotective; cytostatic;
KW virucide; dermatological; immunosuppressive; antiinflammatory; anti-HIV;
KW vulnerary; antibacterial; antiparkinsonian; antisickling; antianaemic;
KW antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective;
KW antiinflammatory; antiallergic; antidiabetic; antiulcer; anticonvulsant;
KW antifungal; antiparasitic; cardiant; immune disorder; infection; vaccine;
KW cardiovascular disorder; neurological disease; nephrotropic;
KW gene therapy.
XX
OS Homo sapiens.
XX
PN WO200277186-A2.
XX
PD 03-OCT-2002.
XX
PF 26-MAR-2002; 2002WO-US09188.
XX
PR 27-MAR-2001; 2001US-278650P.
PR 12-SEP-2001; 2001US-0950082.
PR 12-SEP-2001; 2001US-0950083.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Ruben SM;
XX
DR WPI; 2003-040583/03.
DR N-PSDB; ABZ67161.
XX
PT New human secreted proteins encoded by genes contained in cDNA clones
PT (e.g. HGCAC19), useful for preventing, treating or diagnosing e.g.

PT AIDS, multiple sclerosis, herpes virus, leukemia, tick-borne
PT encephalitis or West Nile fever -
XX
PS Claim 1; Page 1469; 2423pp; English.
XX
CC The invention relates to novel human genes (ABZ66891-ABZ68209) and the
CC encoded secreted proteins (ABP99470-ABP99872) useful for preventing,
CC treating or ameliorating medical conditions e.g. by protein or gene
CC therapy. The genes are isolated from a range of human tissues disclosed
CC in the specification. The nucleic acids, proteins, antibodies and
CC (ant)agonists are useful in the diagnosis, treatment and prevention of:
CC (a) cancer, e.g. breast and ovarian cancer and other cancers of the
CC adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver,
CC lung or urogenital; (b) immune disorders e.g. Addison's disease,
CC allergies, autoimmune haemolytic anaemia, autoimmune thyroiditis,
CC diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid
CC arthritis and ulcerative colitis; (c) cardiovascular disorders such as
CC myocardial ischaemias; (d) wound healing; (e) neurological diseases e.g.
CC cerebral anoxia and epilepsy; and (f) infectious diseases such as viral,
CC bacterial, fungal and parasitic infections.
XX
SQ Sequence 9 AA;

Query Match 60.4%; Score 29; DB 24; Length 9;
Best Local Similarity 62.5%; Pred. No. 9.3e+05;
Matches 5; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 2 SGSGLRPG 9
:|:|| ||
Db 1 AGAGLPPG 8

RESULT 4
AAR28240
ID AAR28240 standard; peptide; 5 AA.
XX
AC AAR28240;
XX
DT 25-MAR-2003 (updated)
DT 02-APR-1993 (first entry)
XX
DE Alpha-substituted short peptide.
XX
KW CCK; neuropeptide; endorphin; hormone; LHRH; contraception; analgesia;
KW improved bioavailability.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 2
FT /note= "alpha-Me-Leu"
FT Modified-site 5
FT /note= "Gly-NH2"
XX
PN WO9219254-A1.
XX
PD 12-NOV-1992.
XX
PF 15-APR-1992; 92WO-US03119.
XX
PR 24-APR-1991; 91US-0690755.
PR 20-MAR-1992; 92US-0852086.
XX
PA (WARN) WARNER LAMBERT CO.
XX
PI Horwell DC, Hughes J, Richardson RS, Howson W;
XX
DR WPI; 1992-398522/48.
XX
PT New alpha-substd. polypeptides are e.g. selective NK2 receptor
PT ligands - for treating inflammation, pain, stroke, ulcers,
PT hypertension, heart failure, depression, cancer, asthma, psychosis,
PT arthritis, etc.
XX
PS Claim 3; Page 40; 46pp; English.
XX
CC The peptide is a specifically claimed example of a group of
CC generically claimed mono-, di-, tri-, tetra- and penta-peptides
CC which include a substituent on an alpha-C atom in the chain. Such
CC substitution may modify the bioavailability, stability or
CC absorbability of the peptide and hence may improve the activity of
CC the peptide as a drug. Depending on the nature of the parent peptide
CC (hormone, endorphin, CCK, NK2, chemotactic peptide, etc.), the
CC modified peptides are variously useful for treating obesity, anxiety,
CC gastrointestinal ulcers, pain, stroke, inflammation, addictive drug
CC withdrawal symptoms, hypertension, heart failure, cognition or memory
CC disorders, spasticity, depression, diabetes, cancer, asthma, bladder
CC dysfunction, psychosis and arthritis; and as contraceptives.
CC (Updated on 25-MAR-2003 to correct PN field.)
CC (Updated on 25-MAR-2003 to correct PD field.)
CC (Updated on 25-MAR-2003 to correct PR field.)
CC (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ Sequence 5 AA;

Query Match 58.3%; Score 28; DB 13; Length 5;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 GLRPG 9
|||||
Db 1 GLRPG 5

RESULT 5
AAR28241
ID AAR28241 standard; peptide; 5 AA.
XX
AC AAR28241;
XX
DT 25-MAR-2003 (updated)
DT 02-APR-1993 (first entry)
XX
DE Alpha-substituted short peptide.
XX
KW CCK; neuropeptide; endorphin; hormone; LHRH; contraception; analgesia;
KW improved bioavailability.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 3
FT /note= "alpha-Me-Arg"
FT Modified-site 5
FT /note= "Gly-NH2"
XX
PN WO9219254-A1.
XX
PD 12-NOV-1992.
XX
PF 15-APR-1992; 92WO-US03119.
XX
PR 24-APR-1991; 91US-0690755.
PR 20-MAR-1992; 92US-0852086.
XX
PA (WARN) WARNER LAMBERT CO.
XX
PI Horwell DC, Hughes J, Richardson RS, Howson W;
XX
DR WPI; 1992-398522/48.
XX
PT New alpha-substd. polypeptides are e.g. selective NK2 receptor
PT ligands - for treating inflammation, pain, stroke, ulcers,
PT hypertension, heart failure, depression, cancer, asthma, psychosis,
PT arthritis, etc.
XX

```
PS   Claim 3; Page 41; 46pp; English.
XX
CC   The peptide is a specifically claimed example of a group of
CC   generically claimed mono-, di-, tri-, tetra- and penta-peptides
CC   which include a substituent on an alpha-C atom in the chain. Such
CC   substitution may modify the bioavailability, stability or
CC   absorbability of the peptide and hence may improve the activity of
CC   the peptide as a drug. Depending on the nature of the parent peptide
CC   (hormone, endorphin, CCK, NK2, chemotactic peptide, etc.), the
CC   modified peptides are variously useful for treating obesity, anxiety,
CC   gastrointestinal ulcers, pain, stroke, inflammation, addictive drug
CC   withdrawal symptoms, hypertension, heart failure, cognition or memory
CC   disorders, spasticity, depression, diabetes, cancer, asthma, bladder
CC   dysfunction, psychosis and arthritis; and as contraceptives.
CC   (Updated on 25-MAR-2003 to correct PN field.)
CC   (Updated on 25-MAR-2003 to correct PD field.)
CC   (Updated on 25-MAR-2003 to correct PR field.)
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence   5 AA;

  Query Match             58.3%;  Score 28;  DB 13;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          5 GLRPG 9
              |||||
Db          1 GLRPG 5


RESULT 6
AAR28242
ID   AAR28242 standard; peptide; 5 AA.
XX
AC   AAR28242;
XX
DT   25-MAR-2003  (updated)
DT   02-APR-1993  (first entry)
XX
DE   Alpha-substituted short peptide.
XX
KW   CCK; neuropeptide; endorphin; hormone; LHRH; contraception; analgesia;
KW   improved bioavailability.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   4
FT                   /note= "alpha-Me-Pro"
FT   Modified-site   5
FT                   /note= "Gly-NH2"
XX
PN   WO9219254-A1.
XX
PD   12-NOV-1992.
XX
PF   15-APR-1992;   92WO-US03119.
XX
PR   24-APR-1991;   91US-0690755.
PR   20-MAR-1992;   92US-0852086.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Hughes J,  Richardson RS,  Howson W;
XX
DR   WPI; 1992-398522/48.
XX
PT   New alpha-substd. polypeptides are e.g. selective NK2 receptor
PT   ligands - for treating inflammation, pain, stroke, ulcers,
PT   hypertension, heart failure, depression, cancer, asthma, psychosis,
PT   arthritis, etc.
XX
PS   Claim 3; Page 41; 46pp; English.
XX
CC   The peptide is a specifically claimed example of a group of
CC   generically claimed mono-, di-, tri-, tetra- and penta-peptides
CC   which include a substituent on an alpha-C atom in the chain. Such
CC   substitution may modify the bioavailability, stability or
CC   absorbability of the peptide and hence may improve the activity of
CC   the peptide as a drug. Depending on the nature of the parent peptide
CC   (hormone, endorphin, CCK, NK2, chemotactic peptide, etc.), the
CC   modified peptides are variously useful for treating obesity, anxiety,
CC   gastrointestinal ulcers, pain, stroke, inflammation, addictive drug
CC   withdrawal symptoms, hypertension, heart failure, cognition or memory
CC   disorders, spasticity, depression, diabetes, cancer, asthma, bladder
CC   dysfunction, psychosis and arthritis; and as contraceptives.
CC   (Updated on 25-MAR-2003 to correct PN field.)
CC   (Updated on 25-MAR-2003 to correct PD field.)
CC   (Updated on 25-MAR-2003 to correct PR field.)
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence   5 AA;

  Query Match             58.3%;  Score 28;  DB 13;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          5 GLRPG 9
              |||||
Db          1 GLRPG 5


RESULT 7
AAR53131
ID   AAR53131 standard; peptide; 5 AA.
XX
AC   AAR53131;
XX
DT   25-MAR-2003  (updated)
DT   14-DEC-1994  (first entry)
XX
DE   Cholecystokinin analogue peptide #15.
XX
KW   Peptide analogue; peptoid; cholecystokinin; CCK; obesity; anxiety;
KW   gastrointestinal ulcers; pain; stroke; inflammation; hypertension;
KW   heart failure; cognition; memory enhancement; spasticity; depression;
KW   diabetes; cancers; asthma; bladder dysfunction; psychosis; arthritis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   2
FT                   /label= MeLeu
FT   Modified-site   5
FT                   /note= "Amidated C-terminal"
XX
PN   WO9409031-A1.
XX
PD   28-APR-1994.
XX
PF   14-OCT-1993;   93WO-US09809.
XX
PR   19-OCT-1992;   92US-0963169.
PR   08-OCT-1993;   93US-0131693.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Howson W,  Hugues J,  Richardson RS;
XX
DR   WPI; 1994-151243/18.
XX
PT   New cholecystokinin analogues - useful e.g. in treatment of pain,
PT   obesity, stroke, anxiety, and gastrointestinal ulcers.
XX
PS   Claim 3; Page 65; 73pp; English.
XX
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```
CC   The sequences given in AAR53117-38 and AAR54530-51 are peptide analogues
CC   of cholecystokinin (CCK) which can be used to treat obesity, anxiety,
CC    gastrointestinal ulcers, pain, stroke, inflammation, hypertension,
CC   heart failure, cognition, memory enhancement, spasticity, depression,
CC   diabetes, cancers, asthma, bladder dysfunction, psychosis, arthritis
CC   and in the treatment of substance withdrawl.
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence   5 AA;

  Query Match             58.3%;  Score 28;  DB 15;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          5 GLRPG 9
              |||||
Db          1 GLRPG 5


RESULT 8
AAR53132
ID   AAR53132 standard; peptide; 5 AA.
XX
AC   AAR53132;
XX
DT   25-MAR-2003  (updated)
DT   14-DEC-1994  (first entry)
XX
DE   Cholecystokinin analogue peptide #16.
XX
KW   Peptide analogue; peptoid; cholecystokinin; CCK; obesity; anxiety;
KW   gastrointestinal ulcers; pain; stroke; inflammation; hypertension;
KW   heart failure; cognition; memory enhancement; spasticity; depression;
KW   diabetes; cancers; asthma; bladder dysfunction; psychosis; arthritis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   3
FT                   /label= MeArg
FT   Modified-site   5
FT                   /note= "Amidated C-terminal"
XX
PN   WO9409031-A1.
XX
PD   28-APR-1994.
XX
PF   14-OCT-1993;   93WO-US09809.
XX
PR   19-OCT-1992;   92US-0963169.
PR   08-OCT-1993;   93US-0131693.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Howson W,  Hugues J,  Richardson RS;
XX
DR   WPI; 1994-151243/18.
XX
PT   New cholecystokinin analogues - useful e.g. in treatment of pain,
PT   obesity, stroke, anxiety, and gastrointestinal ulcers.
XX
PS   Claim 3; Page 65; 73pp; English.
XX
CC   The sequences given in AAR53117-38 and AAR54530-51 are peptide analogues
CC   of cholecystokinin (CCK) which can be used to treat obesity, anxiety,
CC    gastrointestinal ulcers, pain, stroke, inflammation, hypertension,
CC   heart failure, cognition, memory enhancement, spasticity, depression,
CC   diabetes, cancers, asthma, bladder dysfunction, psychosis, arthritis
CC   and in the treatment of substance withdrawl.
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence   5 AA;

  Query Match             58.3%;  Score 28;  DB 15;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          5 GLRPG 9
              |||||
Db          1 GLRPG 5


RESULT 9
AAR53133
ID   AAR53133 standard; peptide; 5 AA.
XX
AC   AAR53133;
XX
DT   25-MAR-2003  (updated)
DT   14-DEC-1994  (first entry)
XX
DE   Cholecystokinin analogue peptide #17.
XX
KW   Peptide analogue; peptoid; cholecystokinin; CCK; obesity; anxiety;
KW   gastrointestinal ulcers; pain; stroke; inflammation; hypertension;
KW   heart failure; cognition; memory enhancement; spasticity; depression;
KW   diabetes; cancers; asthma; bladder dysfunction; psychosis; arthritis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   4
FT                   /label= MePro
FT   Modified-site   5
FT                   /note= "Amidated C-terminal"
XX
PN   WO9409031-A1.
XX
PD   28-APR-1994.
XX
PF   14-OCT-1993;   93WO-US09809.
XX
PR   19-OCT-1992;   92US-0963169.
PR   08-OCT-1993;   93US-0131693.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Howson W,  Hugues J,  Richardson RS;
XX
DR   WPI; 1994-151243/18.
XX
PT   New cholecystokinin analogues - useful e.g. in treatment of pain,
PT   obesity, stroke, anxiety, and gastrointestinal ulcers.
XX
PS   Claim 3; Page 65; 73pp; English.
XX
CC   The sequences given in AAR53117-38 and AAR54530-51 are peptide analogues
CC   of cholecystokinin (CCK) which can be used to treat obesity, anxiety,
CC    gastrointestinal ulcers, pain, stroke, inflammation, hypertension,
CC   heart failure, cognition, memory enhancement, spasticity, depression,
CC   diabetes, cancers, asthma, bladder dysfunction, psychosis, arthritis
CC   and in the treatment of substance withdrawl.
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence   5 AA;

  Query Match             58.3%;  Score 28;  DB 15;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          5 GLRPG 9
              |||||
Db          1 GLRPG 5


RESULT 10
```

```
AAB90982
ID   AAB90982 standard; Peptide; 7 AA.
XX
AC   AAB90982;
XX
DT   22-JUN-2001  (first entry)
XX
DE   Luteinising hormone releasing hormone (LH-RH) related peptide SEQ ID:156.
XX
KW   Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW   blood component; modification; succinimidyl; maleimido group; amino;
KW   hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200069900-A2.
XX
PD   23-NOV-2000.
XX
PF   17-MAY-2000; 2000WO-US13576.
XX
PR   17-MAY-1999;   99US-0134406.
PR   10-SEP-1999;   99US-0153406.
PR   15-OCT-1999;   99US-0159783.
XX
PA   (CONJ-) CONJUCHEM INC.
XX
PI   Bridon DP,  Ezrin AM,  Milner PG,  Holmes DL,  Thibaudeau K;
XX
DR   WPI; 2001-112059/12.
XX
PT   Modifying and attaching therapeutic peptides to albumin prevents
PT   peptidase degradation, useful for increasing length of in vivo activity
PT   -
XX
PS   Disclosure; Page 241; 733pp; English.
XX
CC   The present invention describes a modified therapeutic peptide (I)
CC   comprising a therapeutically active amino acid region (III) and a
CC   reactive group (II) (e.g. succinimidyl and maleimido groups) attached to
CC   a less therapeutically active amino acid region (IV), which covalently
CC   bonds with amino/hydroxyl/thiol groups on blood components to form a
CC   peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
CC   (I) are useful for modifying therapeutic peptides e.g. hormones, growth
CC   factors and neurotransmitters, to protect them from peptidase activity
CC   in vivo for the treatment of various disorders. Endogenous therapeutic
CC   peptides are not suitable as drug candidates as they require frequent
CC   administration due to rapid degradation by peptidases in the body.
CC   Modifying and attaching therapeutic peptides to albumin prevents or
CC   reduces the action of peptidases to increase length of activity (half
CC   life) and specificity as bonding to large molecules decreases
CC   intracellular uptake and interference with physiological processes.
CC   AAB90829 to AAB92441 represent peptides which can be used in the
CC   exemplification of the present invention.
XX
SQ   Sequence   7 AA;

  Query Match             58.3%;  Score 28;  DB 22;  Length 7;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          5 GLRPG 9
              |||||
Db          3 GLRPG 7


RESULT 11
AAP50692
ID   AAP50692 standard; peptide; 8 AA.
XX
AC   AAP50692;
XX
DT   16-AUG-2002  (updated)
DT   16-OCT-1991  (first entry)
XX
DE   Sequence of gonadorelin peptide intermediate.
XX
KW   Gonadorelin; hormone; luteinising hormone releasing hormone.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site  1
FT                   /note= "bonded to urethane-protecting gp."
FT   Modified-site  8
FT                   /label= Gly-NH2
XX
PN   EP156280-A.
XX
PD   02-OCT-1985.
XX
PF   18-MAR-1985;   85EP-0103106.
XX
PR   27-MAR-1984;   84DE-3411224.
XX
PA   (FARH ) HOECHST AG.
XX
PI   Uhmann R,  Radscheit K;
XX
DR   WPI; 1985-243923/40.
XX
PT   Prodn. of gonadorelin peptide intermediates without racemisation
PT   - from new protected tryptophan tri:peptide derivs.
XX
PS   Claim 4; Page 23; 28pp; German.
XX
CC   The peptides of the invention are intermediates for the synthesis of
CC   gonadorelin (luteinising hormone releasing hormone) and its
CC   analogues (see e.g. US 4024248).
CC   (Updated on 16-AUG-2002 to add missing OS field.)
XX
SQ   Sequence   8 AA;

  Query Match             58.3%;  Score 28;  DB 6;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 9.3e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          5 GLRPG 9
              |||||
Db          4 GLRPG 8


RESULT 12
AAR26733
ID   AAR26733 standard; peptide; 8 AA.
XX
AC   AAR26733;
XX
DT   25-MAR-2003  (updated)
DT   11-FEB-1993  (first entry)
XX
DE   Immunogenic LHRH(3-10).
XX
KW   Immunoneutralisation; luteinising hormone releasing hormone; GnRH;
KW   gonadoliberin; castration.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   8
FT                   /note= "amidated"
XX
PN   EP501882-A2.
XX
PD   02-SEP-1992.
```

XX
PF 26-FEB-1992; 92EP-0400496.
XX
PR 01-MAR-1991; 91FR-0002513.
PR 10-DEC-1991; 91FR-0015289.
XX
PA (INMR) RHONE MERIEUX SA.
XX
PI Bonneau MB, Chouvet C, Dufour R, Roulet C;
XX
DR WPI; 1992-294301/36.
XX
PT Improving meat quality of intact male animals - by
PT immuno:neutralisation, shortly before slaughter, of steroid with
PT anti-LHRH, esp. induced by two=stage vaccination
XX
PS Claim 22; Page 17; 18pp; French.
XX
CC LHRH(3-10) is highly immunogenic but lacks the hormonal properties
CC of natural LHRH. Conjugates of the peptide with an immunogenic
CC carrier protein can be used as an anti-LHRH vaccine. (An alpha-
CC globulin/LHRH conjugate can also be used as anti-LHRH vaccine). The
CC vaccines are administered shortly before slaughter to suppress the
CC action of androgenic and non-androgenic hormones in non-castrated
CC male animals. This allows the advantages associated with the male
CC character (greater weight gain, more efficient feed utilisation and
CC leaber carcasses) to be retained practically up to the time of
CC slaughter. The treatment does not induce any local reactions which
CC could result in the meat being rejected on grounds of quality.
CC (Updated on 25-MAR-2003 to correct PN field.)
CC (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 8 AA;

Query Match 58.3%; Score 28; DB 13; Length 8;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 GLRPG 9
|||||
Db 4 GLRPG 8

RESULT 13
AAW94892
ID AAW94892 standard; peptide; 8 AA.
XX
AC AAW94892;
XX
DT 11-MAY-1999 (first entry)
XX
DE LHRH peptide fragment.
XX
KW LHRH; immune response; luteinising hormone releasing hormone; DT;
KW diphtheria toxoid; castrating; oestrus cycling; aggression; breast;
KW sexual activity; organoleptic; livestock; cell growth; malignant;
KW prostate; ovarian; oncofoetal; hyperplastic; pregnancy;
KW endometriosis; inflammatory response.
XX
OS Homo sapiens.
XX
PN WO9902180-A1.
XX
PD 21-JAN-1999.
XX
PF 09-JUL-1998; 98WO-AU00532.
XX
PR 09-JUL-1997; 97AU-0007768.
XX
PA (CSLC-) CSL LTD.
XX
PI McNamara MK;
XX
DR WPI; 1999-120511/10.
XX
PT New immunogenic leutenising hormone releasing hormone compositions -
PT comprise LHRH conjugated to diphtheria toxoid and adsorbed to an
PT ionic polysaccharide, used to inhibit reproductive function in
PT animals
XX
PS Examples; Page 30; 41pp; English.
XX
CC The invention relates immunogenic composition for eliciting an immune
CC response to luteinising hormone releasing hormone (LHRH). The
CC composition comprises a LHRH-diphtheria toxoid (DT) conjugate adsorbed to
CC an ionic polysaccharide. The LHRH-DT compositions can be used for
CC eliciting an immune response to LHRH, for castrating an animal, for
CC regulating oestrus cycling in a female animal or for inhibiting
CC characteristics induced by the sexual maturation of an animal, e.g.
CC aggression or sexual activity. They can also be used for achieving
CC production gains in livestock, e.g. reduction or elimination of unwanted
CC organoleptic characteristics from the meat of livestock. They can also be
CC used for inhibiting the growth of cells which are regulated directly or
CC indirectly by LHRH, e.g. malignant breast cells, malignant prostate
CC cells, malignant ovarian cells, malignant oncofoetal cells or
CC hyperplastic cells. They can also be used for down-regulating the libido
CC of an animal. They can also be used for inhibiting pregnancy, prostate
CC enlargement, endometriosis or inflammatory responses. The LHRH
CC compositions induce a more effective immune response against LHRH than
CC the LHRH-carrier-adjuvant compositions. The effective immune response
CC against LHRH results in prevention of the release of the hormones LH and
CC FSH from the anterior pituitary. Sequences AAW94890-93 are peptide
CC derivatives of LHRH.
XX
SQ Sequence 8 AA;

Query Match 58.3%; Score 28; DB 20; Length 8;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 GLRPG 9
|||||
Db 4 GLRPG 8

RESULT 14
AAB15364
ID AAB15364 standard; peptide; 8 AA.
XX
AC AAB15364;
XX
DT 17-JAN-2001 (first entry)
XX
DE Human LHRH peptide SEQ ID NO: 3.
XX
KW Human; LHRH; GnRH; luteinising hormone releasing hormone;
KW gonadotrophin releasing hormone; fertility control; cancer;
KW endometriosis; prostate enlargement.
XX
OS Homo sapiens.
XX
PN WO200041720-A1.
XX
PD 20-JUL-2000.
XX
PF 24-DEC-1999; 99WO-AU01167.
XX
PR 08-JAN-1999; 99AU-0008073.
XX
PA (CSLC-) CSL LTD.
XX
PI Walker J;
XX
DR WPI; 2000-475954/41.
XX
PT Adjuvant composition for manufacturing an immunogenic composition that

PT can elicit an immune response in an animal, comprises an ionic
PT polysaccharide component and a saponin component that is an
PT immunostimulating complex -
XX
PS Disclosure; Page 50; 53pp; English.
XX
CC The present sequence is a peptide fragment of human luteinising hormone
CC releasing hormone (also known as LHRH, GnRH and gonadotrophin releasing
CC hormone). It was used to demonstrate the novel adjuvant of the invention,
CC which has lower reactogenicity then previous compositions. Vaccination of
CC humans and animals against LHRH can be used as a method of fertility
CC control, as well as enabling the control and treatment of disorders of
CC the reproductive organs, such as testicular, breast, prostate and ovarian
CC cancers, prostate enlargement and endometriosis. The composition of the
CC invention contains an anionic macromolecule and a saponin component, the
CC latter of which is an immunostimulant, and it can also be used with other
CC immunogens including soluble protein antigens, peptide haptens conjugated
CC to a carrier protein and whole viruses.
XX
SQ Sequence 8 AA;

Query Match 58.3%; Score 28; DB 21; Length 8;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 GLRPG 9
|||||
Db 4 GLRPG 8

RESULT 15
AAP60174
ID AAP60174 standard; peptide; 9 AA.
XX
AC AAP60174;
XX
DT 25-MAR-2003 (updated)
DT 19-AUG-1991 (first entry)
XX
DE Sequence of luteinising hormone releasing hormone (LHRH) analogue.
XX
KW Contraception; vaccine; cryptorchidism; prostate cancer therapy;
KW sex hormone.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 9
FT /label= Gly-NH2
XX
PN EP181236-A.
XX
PD 14-MAY-1986.
XX
PF 08-NOV-1985; 85EP-0308166.
XX
PR 09-NOV-1984; 84US-0670469.
PR 06-MAY-1986; 86AU-0057178.
PR 01-MAY-1986; 86ZA-0003292.
XX
PA (PITM) PITMAN MOORE INC.
XX
PI Mia AS;
XX
DR WPI; 1986-126646/20.
XX
PT New nona- and deca-peptide(s) and dimers - are LHRH analogues
PT useful for preventing ovulation and or treatment of
PT cryptorchidism and prostate cancer
XX
PS Claim 1i; Page 19; 20pp; English.
XX
CC Peptides of the SQs in AAP60174 and AAP60175 are claimed, the last 8 AAs
CC of which are the same and in the same order as the last 8 residues
CC of LHRH. Except at very low pH AAP60175 dimerises quickly through the
CC SH gps. of Cys to give a dimer which is also claimed. A mixture of
CC AAP60174 and AAP60175, and a conjugate of a carrier protein and
CC AAP60174, AAP60175 and the dimer is claimed as a vaccine. Dosage is
CC 0.2-1.0 mg/kg given twice at a 3-6 week interval.
CC (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 9 AA;

Query Match 58.3%; Score 28; DB 7; Length 9;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 GLRPG 9
|||||
Db 5 GLRPG 9

Search completed: November 17, 2003, 18:29:39
Job time : 35 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:31:25 ; Search time 22.5 Seconds
(without alignments)
73.024 Million cell updates/sec

Title: US-09-462-089-4
Perfect score: 48
Sequence: 1 GSGSGLRPG 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 666188 seqs, 182559486 residues

Total number of hits satisfying chosen parameters: 64208

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA:*
1: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
2: /cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*
3: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
4: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*
5: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
6: /cgn2_6/ptodata/2/pubpaa/PCTUS_PUBCOMB.pep:*
7: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*
8: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
9: /cgn2_6/ptodata/2/pubpaa/US09A_PUBCOMB.pep:*
10: /cgn2_6/ptodata/2/pubpaa/US09B_PUBCOMB.pep:*
11: /cgn2_6/ptodata/2/pubpaa/US09C_PUBCOMB.pep:*
12: /cgn2_6/ptodata/2/pubpaa/US09_NEW_PUB.pep:*
13: /cgn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*
14: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*
15: /cgn2_6/ptodata/2/pubpaa/US10C_PUBCOMB.pep:*
16: /cgn2_6/ptodata/2/pubpaa/US10_NEW_PUB.pep:*
17: /cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep:*
18: /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	28	58.3	9	9	US-09-192-854-117	Sequence 117, App
2	28	58.3	9	10	US-09-968-561A-204	Sequence 204, App
3	28	58.3	9	12	US-09-968-744A-204	Sequence 204, App
4	26	54.2	8	15	US-10-104-919-48	Sequence 48, Appl
5	26	54.2	9	10	US-09-780-668A-24	Sequence 24, Appl
6	26	54.2	9	12	US-10-307-389-47	Sequence 47, Appl
7	25	52.1	9	11	US-09-931-325A-154	Sequence 154, App
8	24	50.0	7	11	US-09-954-385-67	Sequence 67, Appl
9	24	50.0	8	12	US-10-213-742-14	Sequence 14, Appl
10	24	50.0	9	11	US-09-931-325A-155	Sequence 155, App
11	23	47.9	6	15	US-10-096-986-48	Sequence 48, Appl
12	23	47.9	7	11	US-09-847-249A-4	Sequence 4, Appli
13	23	47.9	7	11	US-09-840-669B-4	Sequence 4, Appli
14	23	47.9	7	15	US-10-198-677-63	Sequence 63, Appl
15	23	47.9	8	9	US-09-220-920-99	Sequence 99, Appl
16	23	47.9	8	9	US-09-947-925A-25	Sequence 25, Appl
17	23	47.9	8	9	US-09-847-712-4	Sequence 4, Appli
18	23	47.9	8	10	US-09-840-277-4	Sequence 4, Appli
19	23	47.9	8	11	US-09-843-221A-7	Sequence 7, Appli
20	23	47.9	8	11	US-09-989-025A-17	Sequence 17, Appl
21	23	47.9	8	12	US-10-351-641-1000	Sequence 1000, Ap
22	23	47.9	9	12	US-10-062-109A-131	Sequence 131, App
23	23	47.9	9	12	US-10-062-109A-278	Sequence 278, App
24	23	47.9	9	12	US-10-062-109A-499	Sequence 499, App
25	23	47.9	9	12	US-10-062-109A-673	Sequence 673, App
26	23	47.9	9	12	US-10-005-480A-131	Sequence 131, App
27	23	47.9	9	12	US-10-005-480A-278	Sequence 278, App
28	23	47.9	9	12	US-10-005-480A-499	Sequence 499, App
29	23	47.9	9	12	US-10-005-480A-673	Sequence 673, App
30	23	47.9	9	15	US-10-121-258-16	Sequence 16, Appl
31	22	45.8	5	9	US-09-815-837-129	Sequence 129, App
32	22	45.8	5	14	US-10-081-281-45	Sequence 45, Appl
33	22	45.8	5	15	US-10-045-792-3	Sequence 3, Appli
34	22	45.8	6	9	US-09-815-837-117	Sequence 117, App
35	22	45.8	6	11	US-09-498-272-18	Sequence 18, Appl
36	22	45.8	6	12	US-09-482-682-63	Sequence 63, Appl
37	22	45.8	6	12	US-10-196-394-129	Sequence 129, App
38	22	45.8	7	10	US-09-818-247-24	Sequence 24, Appl
39	22	45.8	7	12	US-10-261-798-90	Sequence 90, Appl
40	22	45.8	7	12	US-09-755-630A-276	Sequence 276, App
41	22	45.8	7	14	US-10-081-281-31	Sequence 31, Appl
42	22	45.8	7	15	US-10-005-438-4	Sequence 4, Appli
43	22	45.8	7	15	US-10-098-093-9	Sequence 9, Appli
44	22	45.8	7	15	US-10-198-677-62	Sequence 62, Appl
45	22	45.8	7	16	US-10-082-747A-35	Sequence 35, Appl

ALIGNMENTS

RESULT 1
US-09-192-854-117
; Sequence 117, Application US/09192854
; Patent No. US20020068276A1
; GENERAL INFORMATION:
; APPLICANT: Winter, Greg
; APPLICANT: Tomlinson, Ian
; TITLE OF INVENTION: Methods for Selecting Functional Peptides
; FILE REFERENCE: 3789/72916
; CURRENT APPLICATION NUMBER: US/09/192,854
; CURRENT FILING DATE: 1998-11-17
; EARLIER APPLICATION NUMBER: 60/066,729
; EARLIER FILING DATE: 1997-11-21
; NUMBER OF SEQ ID NOS: 212
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 117
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-192-854-117

Query Match 58.3%; Score 28; DB 9; Length 9;
Best Local Similarity 100.0%; Pred. No. 6e+05;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          5 GLRPG 9
              |||||
Db          4 GLRPG 8
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RESULT 2
US-09-968-561A-204
; Sequence 204, Application US/09968561A
; Patent No. US20020164642A1
; GENERAL INFORMATION:
; APPLICANT: Tomlinson, Ian M
; APPLICANT: Winter, Gregory
; TITLE OF INVENTION: Method to Screen Phage Display Libraries with Different Ligands

```
;  FILE REFERENCE: 8039/1073B
;  CURRENT APPLICATION NUMBER: US/09/968,561A
;  CURRENT FILING DATE:  2001-10-01
;  PRIOR APPLICATION NUMBER: GB 9722131.1
;  PRIOR FILING DATE: 1997-10-20
;  PRIOR APPLICATION NUMBER: US 60/065,248
;  PRIOR FILING DATE: 1997-11-13
;  PRIOR APPLICATION NUMBER: US 60/066,729
;  PRIOR FILING DATE: 1997-11-21
;  PRIOR APPLICATION NUMBER: PCT/GB98/03135
;  PRIOR FILING DATE: 1998-10-20
;  PRIOR APPLICATION NUMBER: US 09/511,939
;  PRIOR FILING DATE: 2000-02-24
;  NUMBER OF SEQ ID NOS: 350
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 204
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-968-561A-204

  Query Match             58.3%;  Score 28;  DB 10;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 6e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          5 GLRPG 9
              |||||
Db          4 GLRPG 8


RESULT 3
US-09-968-744A-204
; Sequence 204, Application US/09968744A
; Publication No. US20030148372A1
; GENERAL INFORMATION:
;  APPLICANT: Tomlinson, Ian M
;  APPLICANT:  Winter, Gregory
;  TITLE OF INVENTION: Method to Screen Phage Display Libraries with Different Ligands
;  FILE REFERENCE: 8039/1073
;  CURRENT APPLICATION NUMBER: US/09/968,744A
;  CURRENT FILING DATE:  2003-01-13
;  PRIOR APPLICATION NUMBER: GB 9722131.1
;  PRIOR FILING DATE: 1997-10-20
;  PRIOR APPLICATION NUMBER: US 60/065,248
;  PRIOR FILING DATE: 1997-11-13
;  PRIOR APPLICATION NUMBER: US 60/066,729
;  PRIOR FILING DATE: 1997-11-21
;  PRIOR APPLICATION NUMBER: PCT/GB98/03135
;  PRIOR FILING DATE: 1998-10-20
;  PRIOR APPLICATION NUMBER: US 09/511,939
;  PRIOR FILING DATE: 2000-02-24
;  NUMBER OF SEQ ID NOS: 350
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 204
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-968-744A-204

  Query Match             58.3%;  Score 28;  DB 12;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 6e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          5 GLRPG 9
              |||||
Db          4 GLRPG 8


RESULT 4
US-10-104-919-48
; Sequence 48, Application US/10104919
; Publication No. US20030099608A1
; GENERAL INFORMATION:
;  APPLICANT: Presnell, Scott R.
;  APPLICANT:  Xu, Wenfeng
;  APPLICANT:  Kindsvogel, Wayne
;  APPLICANT:  Chen, Zhi
;  APPLICANT:  Hughes, Steven D.
;  TITLE OF INVENTION: Human Cytokine Receptor
;  FILE REFERENCE: 01-12
;  CURRENT APPLICATION NUMBER: US/10/104,919
;  CURRENT FILING DATE:  2002-03-23
;  PRIOR APPLICATION NUMBER: US 60/279,222
;  PRIOR FILING DATE: 2001-03-27
;  NUMBER OF SEQ ID NOS: 62
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 48
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Gly-Ser spacer peptide
US-10-104-919-48

  Query Match             54.2%;  Score 26;  DB 15;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 6e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |||||
Db          1 GSGSG 5


RESULT 5
US-09-780-668A-24
; Sequence 24, Application US/09780668A
; Patent No. US20020147311A1
; GENERAL INFORMATION:
;  APPLICANT: Gillies, Stephen
;  APPLICANT:  Burger, Christa
;  APPLICANT:  Lo, Kin-Ming
;  TITLE OF INVENTION: Enhancing the Circulating Half-Life of Antibody-Based Fusion
;  TITLE OF INVENTION:  Proteins
;  FILE REFERENCE: LEX-011
;  CURRENT APPLICATION NUMBER: US/09/780,668A
;  CURRENT FILING DATE:  2001-02-09
;  PRIOR APPLICATION NUMBER: US 60/181,768
;  PRIOR FILING DATE: 2000-02-11
;  NUMBER OF SEQ ID NOS: 35
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 24
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: sequence at fusion junction
US-09-780-668A-24

  Query Match             54.2%;  Score 26;  DB 10;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 6e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |||||
Db          2 GSGSG 6


RESULT 6
US-10-307-389-47
; Sequence 47, Application US/10307389
; Publication No. US20030175807A1
; GENERAL INFORMATION:
;  APPLICANT: BAUBET, VALERIE
;  APPLICANT:  LE MOUELLIC, HERVE
;  APPLICANT:  BRULET, PHILIPPE
;  TITLE OF INVENTION: CHIMERIC GFP-AEQUORIN AS BIOLUMINESCENT Ca++ REPORTERS
```

```
;  TITLE OF INVENTION:  AT THE SINGLE CELL LEVEL
;  FILE REFERENCE: 03495-0207-00000
;  CURRENT APPLICATION NUMBER: US/10/307,389
;  CURRENT FILING DATE:  2002-12-02
;  PRIOR APPLICATION NUMBER: US/09/863,901
;  PRIOR FILING DATE: 2001-05-24
;  PRIOR APPLICATION NUMBER: 60/208,314
;  PRIOR FILING DATE: 2000-06-01
;  PRIOR APPLICATION NUMBER: 60/210,526
;  PRIOR FILING DATE: 2000-06-06
;  PRIOR APPLICATION NUMBER: 60/255,111
;  PRIOR FILING DATE: 2000-12-14
;  NUMBER OF SEQ ID NOS: 48
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 47
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: Synthetic
;   OTHER INFORMATION: construct
US-10-307-389-47

  Query Match             54.2%;  Score 26;  DB 12;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 6e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |||||
Db          2 GSGSG 6


RESULT 7
US-09-931-325A-154
; Sequence 154, Application US/09931325A
; Publication No. US20030054337A1
; GENERAL INFORMATION:
;  APPLICANT: Birkett, Ashley J.
;  TITLE OF INVENTION: MALARIA IMMUNOGEN AND VACCINE
;  FILE REFERENCE: 4564/83503 ICC-103.1
;  CURRENT APPLICATION NUMBER: US/09/931,325A
;  CURRENT FILING DATE:  2002-02-22
;  PRIOR APPLICATION NUMBER: 60/225,843
;  PRIOR FILING DATE: 2000-08-16
;  PRIOR APPLICATION NUMBER: USSN NOT YET ASSIGND
;  PRIOR FILING DATE: 2001-08-15
;  NUMBER OF SEQ ID NOS: 186
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 154
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Plasmodium vivax
US-09-931-325A-154

  Query Match             52.1%;  Score 25;  DB 11;  Length 9;
  Best Local Similarity   50.0%;  Pred. No. 6e+05;
  Matches    4;  Conservative    3;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 SGSGLRPG 9
              :|:| :||
Db          2 NGAGNQPG 9


RESULT 8
US-09-954-385-67
; Sequence 67, Application US/09954385
; Publication No. US20030100467A1
; GENERAL INFORMATION:
;  APPLICANT: Aehle, Wolfgang
;  APPLICANT:  Baldwin, Toby L.
;  APPLICANT:  Van Gastel, Franciscus J.C.
;  APPLICANT:  Janssen, Giselle G.
;  APPLICANT:  Murray, Christopher J.
;  APPLICANT:  Wang, Huaming
;  APPLICANT:  Winetzky, Deborah S.
;  TITLE OF INVENTION: Binding Phenol Oxidizing Enzyme-peptide
;  TITLE OF INVENTION:  Complexes
;  FILE REFERENCE: GC690
;  CURRENT APPLICATION NUMBER: US/09/954,385
;  CURRENT FILING DATE:  2001-09-12
;  NUMBER OF SEQ ID NOS: 433
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 67
;   LENGTH: 7
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: binding peptide
US-09-954-385-67

  Query Match             50.0%;  Score 24;  DB 11;  Length 7;
  Best Local Similarity   83.3%;  Pred. No. 6e+05;
  Matches    5;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          4 SGLRPG 9
              ||| ||
Db          1 SGLWPG 6


RESULT 9
US-10-213-742-14
; Sequence 14, Application US/10213742
; Publication No. US20030194411A1
;  GENERAL INFORMATION:
;       APPLICANT: Arye Rubinstein, Barry R. Bloom, Yair Devash and Stanley J. Cryz
;       TITLE OF INVENTION: PEPTIDE COMPOSITIONS FOR THE TREATMENT AND
;                           PREVENTION OF HIV
;       NUMBER OF SEQUENCES: 16
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Amster, Rothstein & Ebenstein
;            STREET: 90 Park Avenue
;            CITY: New York
;            STATE: New York
;            COUNTRY: U.S.A.
;            ZIP: 10016
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: 3.5 inch 1.44 Mb storage diskette
;            COMPUTER: IBM PC Compatible
;            OPERATING SYSTEM: MS-DOS
;            SOFTWARE: Word Processor (ASCII)
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/10/213,742
;            FILING DATE: 09-Aug-2002
;            CLASSIFICATION: <Unknown>
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: US/08/946,525
;            FILING DATE: October 7, 1997
;            APPLICATION NUMBER: 08/785,696
;            FILING DATE: January 17, 1997
;       ATTORNEY/AGENT INFORMATION:
;            NAME: Bogosian, Elizabeth A
;            REGISTRATION NUMBER: 39,911
;            REFERENCE/DOCKET NUMBER: 96700/448
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: (212) 697-5995
;            TELEFAX: (212) 286-0854 or 286-0082
;            TELEX: TWX 710-581-4766
;  INFORMATION FOR SEQ ID NO: 14:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 8
;            TYPE: amino acid
;            STRANDEDNESS: single
;            TOPOLOGY: linear
;       MOLECULE TYPE: <Unknown>
;            DESCRIPTION: peptide
;       HYPOTHETICAL: No
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;       SEQUENCE DESCRIPTION: SEQ ID NO: 14:
US-10-213-742-14

  Query Match             50.0%;  Score 24;  DB 12;  Length 8;
  Best Local Similarity   57.1%;  Pred. No. 6e+05;
  Matches    4;  Conservative    1;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          3 GSGLRPG 9
              | |: ||
Db          1 GPGIGPG 7


RESULT 10
US-09-931-325A-155
; Sequence 155, Application US/09931325A
; Publication No. US20030054337A1
; GENERAL INFORMATION:
;  APPLICANT: Birkett, Ashley J.
;  TITLE OF INVENTION: MALARIA IMMUNOGEN AND VACCINE
;  FILE REFERENCE: 4564/83503 ICC-103.1
;  CURRENT APPLICATION NUMBER: US/09/931,325A
;  CURRENT FILING DATE:  2002-02-22
;  PRIOR APPLICATION NUMBER: 60/225,843
;  PRIOR FILING DATE: 2000-08-16
;  PRIOR APPLICATION NUMBER: USSN NOT YET ASSIGND
;  PRIOR FILING DATE: 2001-08-15
;  NUMBER OF SEQ ID NOS: 186
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 155
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Plasmodium vivax
US-09-931-325A-155

  Query Match             50.0%;  Score 24;  DB 11;  Length 9;
  Best Local Similarity   50.0%;  Pred. No. 6e+05;
  Matches    4;  Conservative    3;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 SGSGLRPG 9
              :|:| :||
Db          2 NGAGDQPG 9


RESULT 11
US-10-096-986-48
; Sequence 48, Application US/10096986
; Publication No. US20030083464A1
;   GENERAL INFORMATION:
;       APPLICANT: Ferrari, Franco A.
;                  Richardson, Charles
;                  Chambers, James
;                  Causey, Stuart
;                  Pollock, Thomas J.
;                  Cappello, Joseph
;                  Crissman, John W.
;       TITLE OF INVENTION: No. US20030083464A1el Peptides Comprising Repetitive
;                           Units of Amino Acids and DNA Sequences Encoding the Same
;       NUMBER OF SEQUENCES: 117
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Flehr Hohbach Test Albritton & Herbert LLP
;            STREET: Four Embarcadero Center, Suite 3400
;            CITY: San Francisco
;            STATE: California
;            COUNTRY: US
;            ZIP: 94111
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.30
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/10/096,986
;            FILING DATE: 12-Mar-2002
;            CLASSIFICATION: <Unknown>
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: US/09/444,791
;            FILING DATE: 22-No. US20030083464A1-1999
;            APPLICATION NUMBER: US 08/482,085
;            FILING DATE: 07-JUN-1995
;            APPLICATION NUMBER: US 08/175,155
;            FILING DATE: 29-DEC-1993
;            APPLICATION NUMBER: US 08/053,049
;            FILING DATE: 22-APR-1993
;            APPLICATION NUMBER: US 07/114,618
;            FILING DATE: 29-OCT-1987
;            APPLICATION NUMBER: US 06/927,258
;            FILING DATE: 04-NOV-1986
;       ATTORNEY/AGENT INFORMATION:
;            NAME: Trecartin, Richard F.
;            REGISTRATION NUMBER: 31,801
;            REFERENCE/DOCKET NUMBER: A-55186-11/RFT/BTC
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: 415-781-1989
;            TELEFAX: 415-398-3249
;   INFORMATION FOR SEQ ID NO: 48:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 6 amino acids
;            TYPE: amino acid
;            STRANDEDNESS: single
;            TOPOLOGY: linear
;       MOLECULE TYPE: peptide
;       SEQUENCE DESCRIPTION: SEQ ID NO: 48:
US-10-096-986-48

  Query Match             47.9%;  Score 23;  DB 15;  Length 6;
  Best Local Similarity   80.0%;  Pred. No. 6e+05;
  Matches    4;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |:|||
Db          2 GAGSG 6


RESULT 12
US-09-847-249A-4
; Sequence 4, Application US/09847249A
; Publication No. US20030032588A1
; GENERAL INFORMATION:
;  APPLICANT: MARSHALL, WILLIAM S.
;  APPLICANT:  STARK, KEVIN LEE
;  TITLE OF INVENTION: GLUCAGON ANTAGONIST
;  FILE REFERENCE: A-693
;  CURRENT APPLICATION NUMBER: US/09/847,249A
;  CURRENT FILING DATE:  2001-05-02
;  PRIOR APPLICATION NUMBER: 60/201,436
;  PRIOR FILING DATE: 2000-05-03
;  NUMBER OF SEQ ID NOS: 80
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
;   LENGTH: 7
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Preferred linker
US-09-847-249A-4

  Query Match             47.9%;  Score 23;  DB 11;  Length 7;
  Best Local Similarity   80.0%;  Pred. No. 6e+05;
  Matches    4;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |:|||
Db          3 GNGSG 7


RESULT 13
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US-09-840-669B-4
; Sequence 4, Application US/09840669B
; Publication No. US20030040470A1
; GENERAL INFORMATION:
;  APPLICANT: KOHNO, TADAHIKO
;  TITLE OF INVENTION: APO-AI/AII PEPTIDE DERIVATIVES
;  FILE REFERENCE: A-690
;  CURRENT APPLICATION NUMBER: US/09/840,669B
;  CURRENT FILING DATE:  2002-06-07
;  PRIOR APPLICATION NUMBER: 60/198,920
;  PRIOR FILING DATE: 2000-04-21
;  NUMBER OF SEQ ID NOS: 11
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
;   LENGTH: 7
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Preferred linker
US-09-840-669B-4

  Query Match             47.9%;  Score 23;  DB 11;  Length 7;
  Best Local Similarity   80.0%;  Pred. No. 6e+05;
  Matches    4;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |:|||
Db          2 GNGSG 6


RESULT 14
US-10-198-677-63
; Sequence 63, Application US/10198677
; Publication No. US20030119023A1
; GENERAL INFORMATION:
;  APPLICANT: CHOO, Yen
;  APPLICANT:  KLUG, Aaron
;  APPLICANT:  MOORE, Michael
;  TITLE OF INVENTION: NUCLEIC ACID BINDING POLYPEPTIDES CHARACTERIZED BY
;  TITLE OF INVENTION:  FLEXIBLE LINKERS CONNECTED NUCLEIC ACID BINDING
;  TITLE OF INVENTION:  MOLECULES
;  FILE REFERENCE: 8325-2011 / G11-US1
;  CURRENT APPLICATION NUMBER: US/10/198,677
;  CURRENT FILING DATE:  2002-07-17
;  NUMBER OF SEQ ID NOS: 144
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 63
;   LENGTH: 7
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: canonical linker
;   OTHER INFORMATION: sequence variant
US-10-198-677-63

  Query Match             47.9%;  Score 23;  DB 15;  Length 7;
  Best Local Similarity   66.7%;  Pred. No. 6e+05;
  Matches    4;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          3 GSGLRP 8
              ||| :|
Db          2 GSGQKP 7


RESULT 15
US-09-220-920-99
; Sequence 99, Application US/09220920
; Patent No. US20020002269A1
; GENERAL INFORMATION:
;  APPLICANT: Milbrandt, Jeffrey D.
;  APPLICANT: Baloh, Robert H.
;  TITLE OF INVENTION: Artemin, A No. US20020002269A1el Neurotrophic Factor
;  FILE REFERENCE: 6029-7996
;  CURRENT APPLICATION NUMBER: US/09/220,920
;  CURRENT FILING DATE: 1998-12-24
;  EARLIER APPLICATION NUMBER: 09/163,283
;  EARLIER FILING DATE: 1998-09-29
;  EARLIER APPLICATION NUMBER: 60/108,148
;  EARLIER FILING DATE: 1998-11-12
;  EARLIER APPLICATION NUMBER: 09/218,698
;  EARLIER FILING DATE: 1998-12-22
;  NUMBER OF SEQ ID NOS: 120
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 99
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-220-920-99

  Query Match             47.9%;  Score 23;  DB 9;  Length 8;
  Best Local Similarity   66.7%;  Pred. No. 6e+05;
  Matches    4;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 GSGSGL 6
              | |:||
Db          2 GGGAGL 7


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Job time : 23.5 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 17, 2003, 18:28:20 ; Search time 14.5 Seconds
(without alignments)
26.262 Million cell updates/sec

Title: US-09-462-089-4
Perfect score: 48
Sequence: 1 GSGSGLRPG 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 77717

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	28	58.3	8	1	US-08-343-883-2	Sequence 2, Appli
2	28	58.3	9	6	5519002-1	Patent No. 5519002
3	26	54.2	6	1	US-08-264-002-15	Sequence 15, Appl
4	26	54.2	6	2	US-08-803-899-21	Sequence 21, Appl
5	26	54.2	6	3	US-08-918-288-81	Sequence 81, Appl
6	26	54.2	6	3	US-09-282-357-81	Sequence 81, Appl
7	26	54.2	6	4	US-09-235-230-31	Sequence 31, Appl
8	26	54.2	8	2	US-08-529-190B-18	Sequence 18, Appl
9	26	54.2	8	2	US-08-803-899-18	Sequence 18, Appl
10	26	54.2	8	3	US-09-029-424-19	Sequence 19, Appl
11	26	54.2	8	3	US-08-918-288-52	Sequence 52, Appl
12	26	54.2	8	3	US-09-282-357-52	Sequence 52, Appl
13	25	52.1	7	1	US-08-332-071B-12	Sequence 12, Appl
14	25	52.1	8	2	US-08-576-039-3	Sequence 3, Appli
15	25	52.1	8	2	US-08-318-837-30	Sequence 30, Appl
16	25	52.1	8	4	US-09-651-656-17	Sequence 17, Appl
17	25	52.1	8	4	US-09-650-855-17	Sequence 17, Appl
18	25	52.1	9	1	US-08-332-071B-4	Sequence 4, Appli
19	25	52.1	9	1	US-08-332-071B-7	Sequence 7, Appli
20	25	52.1	9	1	US-08-332-071B-8	Sequence 8, Appli
21	25	52.1	9	1	US-08-332-071B-13	Sequence 13, Appl
22	25	52.1	9	1	US-07-848-636B-6	Sequence 6, Appli
23	24	50.0	8	3	US-08-946-525-14	Sequence 14, Appl
24	24	50.0	8	4	US-09-599-286-14	Sequence 14, Appl
25	23	47.9	6	1	US-08-477-509B-48	Sequence 48, Appl
26	23	47.9	6	2	US-08-707-237A-20	Sequence 20, Appl
27	23	47.9	6	3	US-08-482-085B-48	Sequence 48, Appl
28	23	47.9	6	4	US-09-444-791A-48	Sequence 48, Appl
29	23	47.9	7	2	US-08-529-190B-55	Sequence 55, Appl
30	23	47.9	8	2	US-08-529-190B-6	Sequence 6, Appli
31	23	47.9	8	3	US-08-444-818-354	Sequence 354, App
32	23	47.9	8	3	US-09-082-279B-1000	Sequence 1000, Ap
33	23	47.9	8	3	US-09-220-528-99	Sequence 99, Appl
34	23	47.9	8	4	US-08-481-968A-25	Sequence 25, Appl
35	23	47.9	8	4	US-08-154-712B-25	Sequence 25, Appl
36	23	47.9	8	4	US-09-315-304B-1000	Sequence 1000, Ap
37	23	47.9	8	4	US-09-834-784-1000	Sequence 1000, Ap
38	22	45.8	5	1	US-08-022-381A-22	Sequence 22, Appl
39	22	45.8	5	1	US-08-475-827A-22	Sequence 22, Appl
40	22	45.8	5	2	US-08-751-767A-26	Sequence 26, Appl
41	22	45.8	5	2	US-08-751-767A-27	Sequence 27, Appl
42	22	45.8	5	3	US-08-855-925A-7	Sequence 7, Appli
43	22	45.8	5	3	US-09-012-710-3	Sequence 3, Appli
44	22	45.8	5	4	US-09-556-273-3	Sequence 3, Appli
45	22	45.8	6	2	US-08-463-667A-15	Sequence 15, Appl

ALIGNMENTS

```
RESULT 1
US-08-343-883-2
; Sequence 2, Application US/08343883
; Patent No. 5573767
;  GENERAL INFORMATION:
;    APPLICANT:  Dufour, Raymond J.
;    APPLICANT:  Roulet, Claude J.M.
;    APPLICANT:  Chouvet, Claire D.
;    APPLICANT:  Bonneau, Michel B.
;    TITLE OF INVENTION:  Method for improving the organoleptic
;    TITLE OF INVENTION:  qualities of the meat from uncastrated male domestic
;    TITLE OF INVENTION:  animals, vaccines which are usable in this method, new
;    TITLE OF INVENTION:  peptide, in particular for producing these vaccines...
;    NUMBER OF SEQUENCES:  2
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Larson and Taylor
;      STREET:  727 Twenty-Third Street, South
;      CITY:  Arlington
;      STATE:  Virginia
;      COUNTRY:  USA
;      ZIP:  22202
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/343,883
;      FILING DATE:  17-NOV-1994
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/946,495
;      FILING DATE:  09-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  FR 9102513
;      FILING DATE:  01-MAR-1991
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  FR 9115289
;      FILING DATE:  10-DEC-1991
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  8 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    FEATURE:
;      NAME/KEY:  Peptide
;      LOCATION:  8
;      OTHER INFORMATION:  /label= NH2
;      OTHER INFORMATION:  /note= "amidated glycine"
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;    PUBLICATION INFORMATION:
;      AUTHORS:  Schally, A. V.
;      AUTHORS:  Arimura, A.
;      AUTHORS:  Carter, W. H.
;      AUTHORS:  Redding, T. W.
;      AUTHORS:  Geiger, R.
;      AUTHORS:  Konig, W.
;      AUTHORS:  Wissman, H.
;      AUTHORS:  Jaeger, G.
;      AUTHORS:  Sandow, J.
;      AUTHORS:  Yanaihara, N.
;      TITLE:  Luteinizing hormone-relaesing hormone (LH-RH)
;      TITLE:  activity of some synthetic polypeptides. I.
;      TITLE:  Fragments shorter than decapeptide.
;      JOURNAL:  Biochem. Biophys. Res. Commun.
;      VOLUME:  48
;      ISSUE:  2
;      PAGES:  366-375
;      DATE:  1972
;      RELEVANT RESIDUES IN SEQ ID NO:  2: FROM 1 TO 8
US-08-343-883-2

  Query Match             58.3%;  Score 28;  DB 1;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          5 GLRPG 9
              |||||
Db          4 GLRPG 8


RESULT 2
5519002-1
;Patent No. 5519002
;    APPLICANT: MIA, ABDUS S.
;    TITLE OF INVENTION: METHOD AND COMPOSITION FOR
;PREVENTING CONCEPTION
;    NUMBER OF SEQUENCES: 2
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/26,180
;      FILING DATE: 01-MAR-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER: 697,127
;      FILING DATE: 08-MAY-1991
;      APPLICATION NUMBER: 250,557
;      FILING DATE: 29-SEP-1988
;SEQ ID NO:1:
;      LENGTH: 9
5519002-1

  Query Match             58.3%;  Score 28;  DB 6;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          5 GLRPG 9
              |||||
Db          5 GLRPG 9


RESULT 3
US-08-264-002-15
; Sequence 15, Application US/08264002
; Patent No. 5559019
;  GENERAL INFORMATION:
;    APPLICANT:  GUI, JIAN-FANG
;    APPLICANT:  FU, XIANG-DONG
;    TITLE OF INVENTION:  NOVEL PROTEIN SERINE KINASE, SRPK1
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  SPENSLEY HORN JUBAS & LUBITZ
;      STREET:  1880 Century Park East, Fifth Floor
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  90067
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/264,002
;      FILING DATE:  22-JUN-1994
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  TUMARKIN PH.D., LISA A.
;      REGISTRATION NUMBER:  P-38,347
;      REFERENCE/DOCKET NUMBER:  PD3590
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  619/455-5100
;      TELEFAX:  619/455-5110
;  INFORMATION FOR SEQ ID NO:  15:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  6 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    FEATURE:
;      NAME/KEY:  Peptide
;      LOCATION:  1..6
US-08-264-002-15

  Query Match             54.2%;  Score 26;  DB 1;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |||||
Db          2 GSGSG 6


RESULT 4
US-08-803-899-21
; Sequence 21, Application US/08803899
; Patent No. 5912224
;  GENERAL INFORMATION:
;    APPLICANT:  DONAHOE, PATRICIA K.
;    APPLICANT:  WANG, TONGWEN
;    TITLE OF INVENTION:  METHODS AND COMPOSITIONS FOR ENHANCING
;    TITLE OF INVENTION:  CELLULAR RESPONSE TO TGF-BETA LIGANDS
;    NUMBER OF SEQUENCES:  26
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C
;      STREET:  1100 NEW YORK AVENUE, SUITE 600
;      CITY:  WASHINGTON
;      STATE:  DC
;      COUNTRY:  USA
;      ZIP:  20005
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/803,899
;      FILING DATE:  02/21/1997
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  60/012,054
;      FILING DATE:  02/22/1996
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  STEFFE, ERIC K.
;      REGISTRATION NUMBER:  36,688
;      REFERENCE/DOCKET NUMBER:  0609.4240001
```

```
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202)371-2600
;      TELEFAX:  (202)371-2540
;  INFORMATION FOR SEQ ID NO:  21:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  6 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-803-899-21

  Query Match             54.2%;  Score 26;  DB 2;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |||||
Db          2 GSGSG 6


RESULT 5
US-08-918-288-81
; Sequence 81, Application US/08918288
; Patent No. 6238890
;  GENERAL INFORMATION:
;    APPLICANT:  BOIME, Irving
;    APPLICANT:  MOYLE, William R.
;    TITLE OF INVENTION:  SINGLE-CHAIN FORMS OF THE
;    TITLE OF INVENTION:  GLYCOPROTEIN HORMONE QUARTET
;    NUMBER OF SEQUENCES:  83
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  MORRISON & FOERSTER
;      STREET:  2000 Pennsylvania Avenue, NW, suite 5500
;      CITY:  Washington
;      STATE:  DC
;      COUNTRY:  USA
;      ZIP:  20006-1888
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/918,288
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  09/282,357
;      FILING DATE:
;      APPLICATION NUMBER:  08/853,524
;      FILING DATE:  09-MAY-1997
;      APPLICATION NUMBER:  08/199,382
;      FILING DATE:  18-FEB-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Murashige, Kate H
;      REGISTRATION NUMBER:  29,959
;      REFERENCE/DOCKET NUMBER:  29500-20050.25
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-887-1500
;      TELEFAX:  202-887-0763
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  81:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  6 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-918-288-81

  Query Match             54.2%;  Score 26;  DB 3;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |||||
Db          1 GSGSG 5


RESULT 6
US-09-282-357-81
; Sequence 81, Application US/09282357
; Patent No. 6242580
;  GENERAL INFORMATION:
;    APPLICANT:  BOIME, Irving
;    APPLICANT:  MOYLE, William R.
;    TITLE OF INVENTION:  SINGLE-CHAIN FORMS OF THE
;    TITLE OF INVENTION:  GLYCOPROTEIN HORMONE QUARTET
;    NUMBER OF SEQUENCES:  83
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  MORRISON & FOERSTER
;      STREET:  2000 Pennsylvania Avenue, NW, suite 5500
;      CITY:  Washington
;      STATE:  DC
;      COUNTRY:  USA
;      ZIP:  20006-1888
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/282,357
;      FILING DATE:
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/918,288
;      FILING DATE:  25 AUG-1997
;      APPLICATION NUMBER:  08/853,524
;      FILING DATE:  09-MAY-1997
;      APPLICATION NUMBER:  08/199,382
;      FILING DATE:  18-FEB-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Murashige, Kate H
;      REGISTRATION NUMBER:  29,959
;      REFERENCE/DOCKET NUMBER:  29500-20050.25
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-887-1500
;      TELEFAX:  202-887-0763
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  81:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  6 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-09-282-357-81

  Query Match             54.2%;  Score 26;  DB 3;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |||||
Db          1 GSGSG 5


RESULT 7
US-09-235-230-31
; Sequence 31, Application US/09235230
; Patent No. 6559287
; GENERAL INFORMATION:
;  APPLICANT:  Bennett, Kelly
;  APPLICANT:  Wolff, Edith A.
;  APPLICANT:  Aruffo, Alejandro A.
;  APPLICANT:  Greenfield, Brad W.
```

```
;  TITLE OF INVENTION:  ARTIFICIAL PROTEOGLYCANS
;  FILE REFERENCE:  ON0153aSequences
;  CURRENT APPLICATION NUMBER: US/09/235,230
;  CURRENT FILING DATE:  1999-01-21
;  PRIOR APPLICATION NUMBER:  60/072,416
;  PRIOR FILING DATE:  1998-01-24
;  NUMBER OF SEQ ID NOS:  32
;  SOFTWARE:  PatentIn Ver. 2.0
; SEQ ID NO 31
;   LENGTH: 6
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-235-230-31

  Query Match             54.2%;  Score 26;  DB 4;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |||||
Db          2 GSGSG 6


RESULT 8
US-08-529-190B-18
; Sequence 18, Application US/08529190B
; Patent No. 5833991
;  GENERAL INFORMATION:
;    APPLICANT:  Masucci, Maria G.
;    TITLE OF INVENTION:  GLYCINE-CONTAINING SEQUENCES
;    TITLE OF INVENTION:  CONFERRING INVISIBILITY TO THE IMMUNE SYSTEM
;    NUMBER OF SEQUENCES:  76
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Banner & Witcoff, Ltd.
;      STREET:  One Financial Center
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  USA
;      ZIP:  02111
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  Wordperfect 6.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/529,190B
;      FILING DATE:  15-SEP-1995
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  SE9501324-9
;      FILING DATE:  10-APR-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US08/522,595
;      FILING DATE:  01-SEP-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Williams, Ph.D., Kathleen A
;      REGISTRATION NUMBER:  34,380
;      REFERENCE/DOCKET NUMBER:  3255/53015
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  617-345-9100
;      TELEFAX:  617-345-9111
;  INFORMATION FOR SEQ ID NO:  18:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  8 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-529-190B-18

  Query Match             54.2%;  Score 26;  DB 2;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |||||
Db          1 GSGSG 5


RESULT 9
US-08-803-899-18
; Sequence 18, Application US/08803899
; Patent No. 5912224
;  GENERAL INFORMATION:
;    APPLICANT:  DONAHOE, PATRICIA K.
;    APPLICANT:  WANG, TONGWEN
;    TITLE OF INVENTION:  METHODS AND COMPOSITIONS FOR ENHANCING
;    TITLE OF INVENTION:  CELLULAR RESPONSE TO TGF-BETA LIGANDS
;    NUMBER OF SEQUENCES:  26
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C
;      STREET:  1100 NEW YORK AVENUE, SUITE 600
;      CITY:  WASHINGTON
;      STATE:  DC
;      COUNTRY:  USA
;      ZIP:  20005
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/803,899
;      FILING DATE:  02/21/1997
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  60/012,054
;      FILING DATE:  02/22/1996
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  STEFFE, ERIC K.
;      REGISTRATION NUMBER:  36,688
;      REFERENCE/DOCKET NUMBER:  0609.4240001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202)371-2600
;      TELEFAX:  (202)371-2540
;  INFORMATION FOR SEQ ID NO:  18:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  8 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-803-899-18

  Query Match             54.2%;  Score 26;  DB 2;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |||||
Db          4 GSGSG 8


RESULT 10
US-09-029-424-19
; Sequence 19, Application US/09029424A
; Patent No. 6030795
; GENERAL INFORMATION:
;  APPLICANT: Saitoh, Masao
;  APPLICANT: Miyazono, Kohei
;  APPLICANT: Ichijo, Hidenori
;  TITLE OF INVENTION: NUCLEIC ACID MOLECULE ENCODING TGF RECEPTOR HAVING MODIFIED
;  TITLE OF INVENTION: GROWTH INHIBITION, AND ITS USE
;  FILE REFERENCE: L0461/7027
;  CURRENT APPLICATION NUMBER: US/09/029,424A
```

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;  CURRENT FILING DATE: 1998-04-28
;  EARLIER APPLICATION NUMBER: PCT/GB96/02179
;  EARLIER FILING DATE: 1996-09-04
;  NUMBER OF SEQ ID NOS: 19
; SEQ ID NO 19
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-029-424-19

  Query Match             54.2%;  Score 26;  DB 3;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |||||
Db          4 GSGSG 8


RESULT 11
US-08-918-288-52
; Sequence 52, Application US/08918288
; Patent No. 6238890
;  GENERAL INFORMATION:
;    APPLICANT:  BOIME, Irving
;    APPLICANT:  MOYLE, William R.
;    TITLE OF INVENTION:  SINGLE-CHAIN FORMS OF THE
;    TITLE OF INVENTION:  GLYCOPROTEIN HORMONE QUARTET
;    NUMBER OF SEQUENCES:  83
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  MORRISON & FOERSTER
;      STREET:  2000 Pennsylvania Avenue, NW, suite 5500
;      CITY:  Washington
;      STATE:  DC
;      COUNTRY:  USA
;      ZIP:  20006-1888
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/918,288
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  09/282,357
;      FILING DATE:
;      APPLICATION NUMBER:  08/853,524
;      FILING DATE:  09-MAY-1997
;      APPLICATION NUMBER:  08/199,382
;      FILING DATE:  18-FEB-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Murashige, Kate H
;      REGISTRATION NUMBER:  29,959
;      REFERENCE/DOCKET NUMBER:  29500-20050.25
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-887-1500
;      TELEFAX:  202-887-0763
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  52:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  8 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-918-288-52

  Query Match             54.2%;  Score 26;  DB 3;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |||||
Db          1 GSGSG 5


RESULT 12
US-09-282-357-52
; Sequence 52, Application US/09282357
; Patent No. 6242580
;  GENERAL INFORMATION:
;    APPLICANT:  BOIME, Irving
;    APPLICANT:  MOYLE, William R.
;    TITLE OF INVENTION:  SINGLE-CHAIN FORMS OF THE
;    TITLE OF INVENTION:  GLYCOPROTEIN HORMONE QUARTET
;    NUMBER OF SEQUENCES:  83
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  MORRISON & FOERSTER
;      STREET:  2000 Pennsylvania Avenue, NW, suite 5500
;      CITY:  Washington
;      STATE:  DC
;      COUNTRY:  USA
;      ZIP:  20006-1888
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/282,357
;      FILING DATE:
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/918,288
;      FILING DATE:  25 AUG-1997
;      APPLICATION NUMBER:  08/853,524
;      FILING DATE:  09-MAY-1997
;      APPLICATION NUMBER:  08/199,382
;      FILING DATE:  18-FEB-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Murashige, Kate H
;      REGISTRATION NUMBER:  29,959
;      REFERENCE/DOCKET NUMBER:  29500-20050.25
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-887-1500
;      TELEFAX:  202-887-0763
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  52:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  8 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-09-282-357-52

  Query Match             54.2%;  Score 26;  DB 3;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GSGSG 5
              |||||
Db          1 GSGSG 5


RESULT 13
US-08-332-071B-12
; Sequence 12, Application US/08332071B
; Patent No. 5556836
;  GENERAL INFORMATION:
;    APPLICANT:  ROEDERN, ERICH G.
;    APPLICANT:  KESSLER, HORST
;    APPLICANT:  KUTSCHER, BERNHARD
;    APPLICANT:  BERND, MICHAEL
;    APPLICANT:  KLENNER, THOMAS
;    TITLE OF INVENTION:  USE OF D-GLUCOPHRANURONIC ACIDS AND
```

```
;    TITLE OF INVENTION:  THEIR DERIVATIVES FOR INCORPORATION IN PHARMACOLOGICALLY
;    TITLE OF INVENTION:  ACTIVE PEPTIDES AND THEIR SALTS
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  CUSHMAN DARBY & CUSHMAN, L.L.P.
;      STREET:  1100 NEW YORK AVENUE, N.W.
;      CITY:  WASHINGTON
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20005
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/332,071B
;      FILING DATE:  01-NOV-1994
;      CLASSIFICATION:  530
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  CHAPIN, MARLANA K.
;      REGISTRATION NUMBER:  35,843
;      REFERENCE/DOCKET NUMBER:  326/216933
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-861-3000
;      TELEFAX:  202-822-0944
;      TELEX:  6714627 CUSH
;  INFORMATION FOR SEQ ID NO:  12:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  7 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-332-071B-12

  Query Match             52.1%;  Score 25;  DB 1;  Length 7;
  Best Local Similarity   83.3%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          4 SGLRPG 9
              | ||||
Db          2 SXLRPG 7


RESULT 14
US-08-576-039-3
; Sequence 3, Application US/08576039
; Patent No. 5821065
;  GENERAL INFORMATION:
;    APPLICANT:  NASER, Werner
;    APPLICANT:  DR GER, Brigitte
;    APPLICANT:  ESSIG, Ulrich
;    APPLICANT:  H BNER-PARAJSZ, Christa
;    APPLICANT:  HUBER, Erasmus
;    TITLE OF INVENTION:  ANTIGENS AND ANTIBODIES FOR THE
;    TITLE OF INVENTION:  DETECTION OF COLLAGEN 1
;    NUMBER OF SEQUENCES:  3
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Nikaido, Marmelstein, Murray & Oram, LLP
;      STREET:  655 Fifteenth Street N.W. Suite 330
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  U.S.A.
;      ZIP:  20005-5701
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/576,039
;      FILING DATE:  21-DEC-1995
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  DE P 44 46 232.8
;      FILING DATE:  23-DEC-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  DE 195 03 146.6
;      FILING DATE:  01-FEB-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Murray, Robert B.
;      REGISTRATION NUMBER:  22,980
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202)638-5000
;      TELEFAX:  (202)638-4810
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  8 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-576-039-3

  Query Match             52.1%;  Score 25;  DB 2;  Length 8;
  Best Local Similarity   71.4%;  Pred. No. 2.5e+05;
  Matches    5;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          3 GSGLRPG 9
                | || ||
Db          1 GVGLGPG 7


RESULT 15
US-08-318-837-30
; Sequence 30, Application US/08318837
; Patent No. 5981277
;  GENERAL INFORMATION:
;    APPLICANT:  FRANSEN, LUCIA; DEVOS, KATHLEEN; VAN DE VOORDE,
;    APPLICANT:  ANDRE; VAN HEUVERSWYN, HUGO
;    TITLE OF INVENTION:  NEW POLYPEPTIDES AND PEPTIDES, NUCLEIC ACID
;    TITLE OF INVENTION:  CODING FOR THEM, AND THEIR USE IN THE FIELD OF TUMOR THERAPY
;    TITLE OF INVENTION:  IMMUNOLOGY
;    NUMBER OF SEQUENCES:  53
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BIERMAN AND MUSERLIAN
;      STREET:  600 THIRD AVENUE
;      CITY:  NEW YORK
;      STATE:  NEW YORK
;      COUNTRY:  USA
;      ZIP:  10016
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  ASCII
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/318,837
;      FILING DATE:  13-OCT-1994
;      CLASSIFICATION:  800
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/EP 93/01022
;      FILING DATE:  28-APR-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  92.401.231.3
;      FILING DATE:  30-APR-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  CHARLES A. MUSERLIAN
;      REGISTRATION NUMBER:  19,683
;      REFERENCE/DOCKET NUMBER:  410.007
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 661-8000
;      TELEFAX:  (212) 661-8002
;  INFORMATION FOR SEQ ID NO:  30:
;    SEQUENCE CHARACTERISTICS:
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; LENGTH: 8 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FRAGMENT TYPE: internal
; ORIGINAL SOURCE:
; ORGANISM: Mouse, human
; CELL LINE: PU5-1.8, THP-1
US-08-318-837-30

Query Match 52.1%; Score 25; DB 2; Length 8;
Best Local Similarity 80.0%; Pred. No. 2.5e+05;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy          5 GLRPG 9
              |:|||
Db          2 GVRPG 6
```

Search completed: November 17, 2003, 18:32:39
Job time : 16 secs